THE BRITISH JOURNAL
OF
DERMATOLOGY
OCTOBER 1957

HERPES GESTATIONIS.

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THE natural history of this rare disease can be studied either by collecting and analysing individual case reports or by taking advantage of the fortuitous occurrence of a number of cases in one institute.

One of us (B. R.) has recently had under his care at the London Hospital three patients with herpes gestationis (H.G.). Their case histories are described below, with those of eight other patients with H.G. who have attended The London Hospital since 1921. Some other case reports of H.G. of special interest in the literature are also tabulated.

HISTORY.

It is uncertain how long H.G. has existed. One would expect the physicians of any age to have been impressed by a bullous eruption recurring in succeeding pregnancies, but Bunel (1811) in his *Essai sur le pemphigus* seems to have been the first to call close attention to it. In 1829 Martius included pemphigus gravidarum among the 97 varieties of pemphigus which he recognized. Later terms, each of which in one way or another portrayed its clinical features, include pemphigus pruriginosus (Chausit, 1852); herpes circinatus bullosus (Wilson, 1867); pemphigus hystericus (Hebra, 1868); herpes gestationis (Milton, 1872); dermatitis multiformis gestationis (Allen, 1889); and *dermite polymorphe douleureuse recidivante de la grossesse* (Brocq, 1891). It is difficult to understand why Milton's term prevailed instead of some other more appropriate term, such as " pemphigus pruriginosus gestationis ".

Incidence.

Crawford and Leeper (1950) found 11 cases of H.G. in 49,254 deliveries at Boston Lying-in Hospital between 1929 and 1948. At The London Hospital, where over 1000 women are confined each year, 11 cases have occurred in the 35 years 1921–55, three of which occurred in the last year, giving an incidence of 1 in 3000+ for the 35 years up to 1955, or 1 in 4000+ for the 34 years up to 1954.

Nosology.

The relationship of dermatitis herpetiformis (D.H.) to H.G. has for long been controversial. H.G. was recognized as an entity earlier than D.H. In 1868 Hebra wrote : " The existence of a real pemphigus hystericus is proved by the occurrence of this eruption as a constant accompaniment of pregnancy and by its disappearance within a short time after delivery ". Milton, of St. John's Hospital for Diseases of the Skin, coined the term " herpes gestationis " in his *Pathology and Treatment of Diseases of the Skin* published in 1872. In 1880 Tilbury Fox recognized the main features of D.H. under the title " hydroa herpetiforme ". Duhring's paper on D.H. appeared in 1884, quoting Neumann's description in 1875 of dermatitis circumscriptus herpetiformis.

Brocq (1888), Bulkley (1874), Crocker (1898), Duhring (1884), Fox (1898) and Jamieson (1898) all regarded H.G. as a variant of D.H., the exciting cause alone being peculiar. This belief has, in general, persisted but Lane (1940) doubted the identity of these two conditions.

None of Duhring's original cases occurred in pregnant women. Malcolm Morris in 1903 quoted Brocq's (1891) opinion that " True dermatitis herpetiformis seems to disappear in women suffering from it if they become pregnant ". Taylor (1898) described a woman aged 30 with D.H. on the upper part of the trunk and the arms. While under observation she became pregnant ; the rash disappeared about the fourth or fifth month.

Intermittent forms and transitions have been described. Pringle (1898) reported a case recurring in seven succeeding pregnancies. The bullous eruption then became more or less continuous and universal ; the conjunctivae were involved, resulting in " essential shrinking ", the mouth and oesophagus were attacked, and the woman died after 12 years' illness, from the perforation of ulcers in the ileum. Pautrier and Lanzenberg (1926) described a transitional form between D.H and H.G. and pemphigus vegetans. Schweig (1944) described a woman with the erythema multiforme type of eruption which began in the fourth month of pregnancy. Owing to fever and debility, the pregnancy was terminated. The eruption worsened and evolved into pemphigus foliaceus. This was possibly pemphigus from the outset. The writers have recently had a patient whose pemphigus vulgaris began during pregnancy.

Natural History.

Howard (1933) summarized the natural course of the disease very clearly, as follows: Herpes gestationis may appear in the first pregnancy or it may start in the second pregnancy, or in a later pregnancy of a long series of pregnancies. It may appear with every pregnancy or intermittently. It may start in the puerperium. Itching may be the first sympton. The rash usually appears at between 4 and 5 months, and progresses with exacerbations and remissions. There is a final exacerbation soon after delivery, followed by regression in from 3 to 30 days. Sometimes there are recurrences at subsequent menstrual periods for several months. There is a residual pigmentation. Mucosal lesions are rare. Lesions may appear on the infant's skin.

Case Reports.

London Hospital Cases.

The clinical features and the results of investigations in these 11 patients are summarized below, the times of onset, remission, puerperal recurrence and final clearance being recorded in weeks estimated from the time of conception:

Time and Manner of Onset.

Case 1 (1925).

	Pregnancy.					
	1.	2.	3.	4.	5.	6.
Age	20	23	31	33	37	41
Onset (weeks)	*nil*	*nil*	39⅘	?	9	34
Remission in pregnancy (weeks)	—	—	*nil*	—	38	*nil*
Puerperal recurrence (weeks)	—	—	—	—	40⅖	40⅗
Final clearance (weeks)	—	—	46	—	46	("Steadily cleared").
Sex of infant	Not stated		M. twins	Not stated	M.	M.

There had also been 2 miscarriages at 3 months. Types of rashes:

Pregnancy 3: Axillae, arms, hands and abdomen most affected. Dull red, with large blisters. Face oedematous.

Pregnancy 4: Feet, itching only.

Pregnancy 5: Feet → thighs, arms, chest, abdomen → whole body, universal except the head. Blisters, intensely itchy papules and erythema. Many excoriations. In puerperium, relapsed with blistering and severe itching, on face, arms, hands, breasts and abdomen.

Pregnancy 6: Soles → whole body, except face and neck. Severe itching. "Herpetiform". Feet swollen and painful. Puerperal recrudescence, especially on feet.

Infant: After the 5th pregnancy, the infant had a pustular eruption confined to the head and lip.

Treatment.—In the 5th pregnancy the patient received liquor arsenicalis m.iii *t.d.s.*, later increased to m.x. *t.d.s.*, without obvious benefit, the itchy rash persisting and later slowly clearing by the 38th week.

Case 2 (1927).

	Pregnancy.		
	1.	2.	3.
Age	24	26	30
Onset (weeks)	*nil*	17	8
Remission in pregnancy (weeks)	—	36	Improved when last seen at 18 weeks.
Puerperal recurrence (weeks)	—	$40\frac{3}{7}$	—
Final clearance (weeks)	—	48	—
Sex of infant	Not stated		—

Types of rashes :

Pregnancy 2 : Soles of feet → whole body. Severe itching, followed by erythema without bullae. At puerperium, intense itching, with blisters all over the body.

Pregnancy 3 : Soles → forearms, arms and whole body, except lower back. Itching, followed 2 days later by papular rash. One week later, blisters developed, up to 1 in. in diameter, whose contents were sterile. The eruption was discrete in places, confluent elsewhere. There were slight hyperkeratoses on the palms and soles.

Treatment.—In the 3rd pregnancy liquor arsenicalis was administered in a dose of m.ii *t.d.s.* but the patient left hospital one week later when the eruption was unaltered on the trunk but drying on the forearms.

Investigations.—Blood : Hb, 47% ; R.B.C., 4,200,000 ; W.B.C. 15,880 (poly. 67%, eos. 23, lymphos. 8, monos. 2%).

Case 3 (1927).

	Pregnancy.						
	1.	2.	3.	4.	5.	6.	7.
Age	21	22	24	26	27	29	31
Onset (weeks)	*nil*	20	20 (approximately with quickening)	20	20	20	26
Remission in pregnancy (weeks)	—	(Not stated)					Improved by 40.
Puerperal recurrence (weeks)	—	(Not stated)					$40\frac{3}{7}$
Final clearance (weeks)	—	—	—	—	—	—	Improved at $41\frac{1}{2}$.
Sex of infant	(Not stated)						M.

Types of rashes :

Pregnancies 2–7 : The first attack began on the arms and was the worst. Subsequent attacks began in different parts.

Pregnancy 7 : Extremities → body, itching followed by blisters, up to 2 cm. in diameter. The lesions were vesicular or pustular, on an erythematous base, with many excoriated papules. A massive desquamation led to a sodden macerated condition of the hands and forearms. At 34 weeks she developed an abscess near the right knee, and at 36 weeks an abscess in the left breast. There was a recurrence of itching in the puerperium, with large erythemato-bullous and pigmented areas on the arms and legs.

Infant : The child developed a slight papular erythema on its face and chest.

Investigations.—Blood : Hb, 68% ; R.B.C., 4,100,000 ; W.B.C., 14,300 (polys. 68·5%, eos. 15·5, lymphos. 12, monos. 4%).

W.R. negative.

CASE 4 (1943).

	Pregnancy.	
	1.	2.
Age	19	21
Onset (weeks)	34	28
Remission in pregnancy (weeks)	Not stated	Quiescent in later weeks.
Puerperal recurrence (weeks)	After delivery	40½
Final clearance (weeks)	Much improved at 44	48
Sex of infant	F.	Not stated

Types of rashes :

Pregnancy 1 : Legs → thighs, wrists → forearms → arms, also abdomen and back. Face and hands escaped. Patchy redness, with papules, pustules and bullae. Bullae most marked on limbs. Febrile (103° F.) in puerperium. Rash worsened and face became involved.

Treatment.—Liquor arsenicalis m.iv *t.d.s.* Antrypol intravenously ½–1 g. weekly. Sulphapyridine for puerperal pyrexia.

Investigations.—Blood : Hb, 90% ; R.B.C. 4,100,000 ; W.B.C., 12,000 (polys. 60%, eos. 10, lymphos. 23·5, monos. 6·5%).

Pregnancy 2 : Arms, legs, buttocks, itching followed by bright papular erythema, " like sunburn ". In puerperium developed blisters on the feet, arms and face ; large vesicles on upper lip and on arms, chest and abdomen ; erythema of tip of nose.

Treatment.—Liquor arsenicalis. Anahaemin 2 ml. daily. Antrypol 1g. weekly intramuscularly for 7 weeks.

Investigations.—Blood : Hb, 50% ; R.B.C., 2,640,000 ; W.B.C. 11,760 (polys. 78%, eos. 1, lymphos. 19, monos. 2%).

W.R. negative.

Nine years later, the patient stated that she had had no further pregnancies and no further bullous eruption. Every month, about 2–3 days before menstruation, she develops an itchy pink papular erythema on the face.

CASE 5 (1952).

	Pregnancy.	
	1.	2.
Age	30	36
Onset (weeks)	*nil*	30
Remission in pregnancy (weeks)	—	(Stillbirth at 33 weeks).
Puerperal recurrence (weeks)	—	—
Final clearance (weeks)	—	45
Sex of infant	Not stated	

Types of rashes :

Pregnancy 2 : Arms and legs, " like insect bites ", itchy raised, red areas, size of finger nail → vesiculation 2 weeks later and stillbirth 3 weeks later. Rash persisted, but less itchy : a symmetrical erythema, with pigmentation and excoriated papules. Mouth clear. A few small bullae subsequently developed on the legs, followed by urticaria-like lesions without bullae and slow resolution.

Treatment.—Phenergan (promezathine hydrochloride).

Investigations.—Blood : Hb, 89% ; R.B.C., 5,230,000 ; W.B.C. 14,200 (polys. 45%, eos. 29, lymphos. 22, monos. 4%).

Rhesus positive.

Histology.—Crust over thinned area of epidermis. Slight infiltrate of lymphocytes and eosinophils in dermis.

Twenty-four-hour rat ovarian hyperaemia pregnancy test negative at 38 weeks, when a few moist lesions persisted on the legs.

Case 6 (1952).

	Pregnancy.		
	1.	2.	3.
Age	31	34	37
Onset (weeks)	*nil*	30	*nil*
Remission in pregnancy (weeks)	—	(Later improved)	(Abortion at 3 months).
Puerperal recurrence (weeks)	—	40⅔	—
Final clearance (weeks)	— (Puerperal urinary infection)	43	—
Sex of infant	M.	F.	—

Types of rashes :

Pregnancy 2 : Ankles → legs and abdomen, grouped bullae, up to 3 cm. diameter on erythematous base, on medial aspects of both legs. Grouped vesicles on soles. Papular erythema on forearms, abdomen and thighs. Several lesions of " herpes iris " on forearms. Mucosae clear. Rash improved, leaving itchy papules on palms and soles. In puerperium, legs → buttocks and lower abdomen, and on arms, severely itchy papular erythema with small bullae.

Treatment.—Phenergan.

Investigations.—Blood :

	At 33 weeks.	At 36 weeks.	At 42 weeks.
Hb	77%	73%	86%
W.B.C.	11,000	16,000	9,350
Poly.	62%	42%	34%
Eos.	12%	25%	19%
Lymphos.	24%	24%	43%
Monos.	2%	9%	4%
Erythrocyte sedimentation rate	55 mm.	—	—

Tzanck test : Many eosinophils. Epithelial cells ; most show no pyknosis or cornification.

Liver function tests normal.

Fibrin deposition in placenta.

Pyogenic staphylococci in swab from skin lesion.

Twenty-four-hour rat ovarian hyperaemia pregnancy test : negative 21 days after delivery, when eruption was in terminal fading phase.

Injection of homologous placental extract into mother, 1 ml. intramuscularly : negative ; 1 ml. intradermally : negative.

Rhesus positive.

Developed irregular transverse pitting and grooving on finger nails and toe nails corresponding with time of onset of bullae.

Case 7 (1955).

	Pregnancy.	
	1.	2.
Age	23	29
Onset (weeks)	Miscarriage at 18 weeks	24
Remission in pregnancy (weeks)	—	33
Puerperal recurrence or onset (weeks)	20	40⅔
Final clearance (weeks)	28	50
Sex of infant	—	F.

Types of rashes :

Pregnancy 1 : Extensive, very itchy whealing with blisters. Diagnosis was erythema multiforme.

Pregnancy 2 : Around umbilicus → abdomen → upper and medial aspects of thighs and medial aspects of arms, a very itchy gyrate erythema with vesiculation. It resolved within 2 months but the itching persisted. Puerperal relapse began as an erythemato-bullous eruption on the legs. The blistering was greatly intensified 7 days after delivery, when oestrogen tablets were given to suppress lactation because of difficulties with the nipples. No fresh blisters occurred at 48 weeks when menstruation was resumed.

Treatment.—Dapsone 100 mg. daily given during the pregnancy was followed by aggravation of the rash. In the puerperium there seemed to be slight response to the drug, though the rash still persisted after the drug had been taken for a month in a dose of 100 mg. daily. Phenergan was also administered during the pregnancy, with some apparent relief.

Investigations.—Histology, in the puerperium, showed numerous eosinophils in the dermis, particularly around the blood vessels and epidermal appendages. The epidermis overlying this area was missing.

Case 8 (1952).

	Pregnancy.	
	1.	2.
Age	21	27
Onset (weeks)	*nil*	—
Remission in pregnancy (weeks)	—	—
Puerperal onset (weeks)	—	$40\frac{3}{7}$
Final clearance (weeks)	—	56
Sex of infant	M.	M.

Types of rashes :

Pregnancy 2 : Hands → arms, feet, legs, thighs and trunk especially the chest, itchy nodules, rapidly becoming blisters, on an erythematous base. At 44 weeks there was a polymorphic eruption of grouped papules, vesicles and bullae in circinate pattern in a surrounding erythema. The bullae were up to 2 in. in diameter.

Treatment.—Ethinyl oestradiol 0·05 mg. *t.d.s.* was given to suppress lactation, without ill effect on the rash. Sulphapyridine was given 1 g. *t.d.s.*, later reduced to 0·5 g. *t.d.s.* because of nausea and giddiness. The rash gradually resolved and cleared 2 months later.

Investigations.—Blood : Hb, 35% ; W.B.C. 9800 (polys. 46%, eos. 12, lymphos. 42%).

Rhesus negative.

Case 9 (1956).

	Pregnancy.		
	1.	2.	3.
Age	35	36	42
Onset (weeks)	—	12	12
Remission in pregnancy (weeks)	—	33 (Premature delivery 35)	37
Puerperal recurrence or onset (weeks)	$40\frac{3}{7}$	$35\frac{4}{7}$	$40\frac{1}{7}$
Final clearance (weeks)	50	38	52
Sex of infant	M.	M.	M.

Types of rashes :

Pregnancy 1 : Backs of hands and feet → forearms, arms, neck, raised red areas with blisters. Diagnosed as erythema multiforme.

Treatment.—Phenobarbitone and ephedrine.

Pregnancy 2 : Hands → forearms, arms, legs, under breasts and around the waist. When the rash was at its height she developed some spots on the mucosae of the cheeks and pharynx.

Treatment.—(In France) Sulphonamides, sterogyl, phenobarbitone and antihistamines. Puerperal rash treated with aureomycin, penicillin, autohaemotherapy, sulpharsenol, adrenaline, progesterone and testoviron ; also received oestrogens for suppression of lactation. Improved after 3 weeks but had relapses for several months about the times her menses were due.

Investigations.—Pregnandiol excretion in urine : 1·9 mg. in 1900 ml. 17-ketosteroids : 7·3 mg. in 24 hours. 11-oxycorticosteroids : 0·96 mg. in 24 hours. Porphyrinuria : Negative.

Pregnancy 3 : Under breasts → limbs, very itchy with papules, vesicles and pustules and excoriations in extensive, sometimes confluent, polycyclic areas resembling wheals.

Treatment.—No response to sulphapyridine 1 g. *b.d.* or to dapsone 100 mg. daily. Fair response to cortisone 125 mg. daily ; lesions became paler and less vesicular. This dose was gradually reduced and the drug was finally withheld 3 weeks before delivery, no relapse occurring.

Puerperal relapse : Polycyclic erythema with vesiculation, particularly on chest and abdomen, the back, axillae, arms, groins, the upper thighs and the knees. Only the scalp and the face were entirely spared.

Treatment.—Dapsone 100 mg. was ineffective. An exacerbation of severe degree followed closely on the administration of ethinyl oestradiol 0·05 mg. *t.d.s.* Cortisone 100 mg. daily, with ACTH gel 20 mg., was relatively ineffective ; cortisone 150 mg. daily, with ACTH gel 20 mg. daily, and the withdrawal of oestrogens, proved effective. A week later acute mastitis developed and the patient was given penicillin, 500,000 units at once and 600,000 units procaine penicillin daily. The ethinyl oestradiol 0·05 mg. *t.d.s.* was resumed ; and ACTH 50 mg. was given daily, with cortisone 75 mg. daily. The doses were gradually reduced to 12·5 mg. of ACTH and 50 mg. of cortisone daily. Relapse occurred at 45 weeks on the arms and back. Intramuscular progesterone 50 mg. *b.d.* was given without benefit for 4 days. At 46 weeks the rash worsened and the patient started to menstruate. On the arms, breasts, abdomen, back and buttocks were raised, red polycyclic lesions. Cortisone 150 mg. daily was resumed and the rash improved. At this time the patient developed a red macule with a white centre on the soft palate. The dose of cortisone was slowly reduced and omitted at 52 weeks without relapse apart from a mild recurrence of polycyclic erythema, without bullae, on the arms, forearms and thighs at 48½ weeks. At 53 weeks she menstruated again : 3 days before this, a group of moderately itchy papules appeared on the thighs and on the back of the neck. They were still present 2 days after the menses stopped, but less severe. No recrudescence occurred at the next period at 57 weeks but at 59 weeks, half-way between this period and the next, she had a widespread relapse of macular and papular polycyclic erythema, without vesiculation. It began to fade after a week. Nine months after delivery she was continuing to have eruptions of erythema with bullae on the chest, abdomen and thighs, one week before each menstrual period. This stopped 10 months after delivery.

Investigations.—Rhesus positive : Blood group 0. Blood pressure 140/100 mm. Hg. Potassium iodide 1% patch test negative at 44 weeks.

W.R. negative. G.F.T. negative.

Blood Counts :

	At 15 weeks.	At 16 weeks.	At 28 weeks.	At 48 weeks.
Hb	74%	80%	88%	—
W.B.C.	11,600	—	—	10,000
Polys.	60%	—	—	58%
Eos.	19%	—	—	3%
Lymphos.	18%	—	—	34%
Monos.	3%	—	—	5%

Plasma calcium 8·2 mg. per 100 ml.

Histology.—Subepidermal and intraepidermal blister containing many eosinophils. No acantholysis.

Bacteriology.—Haemolytic streptococci and pyogenic staphylococci recovered from bullae.

Twenty-four-hour rat ovarian hyperaemia pregnancy test negative at 46 weeks.

General health.—The patient had bronchiectasis since pneumonia at the age of 8 years. At 26 she had antral sinusitis treated by lavage. At 32 she had a cervical polyp removed.

Case 10 (1956).

	Pregnancy.			
	1.	2.	3.	4.
Age	19	20	24	33
Onset (weeks)	13	13	13	16
Remission in pregnancy (weeks)	After miscarriage at 17 weeks	After miscarriage at 18 weeks	Miscarriage at 28 weeks	Miscarriage at 25 weeks.
Final clearance	—	—	34	28
Sex of infant	M.	M.	M.	M.

Pregnancy 1 : Itchy rash like scabies on fingers.

Pregnancy 2 : Itchy rash between fingers, on hands, wrists, arms and body. Diagnosis of scabies not confirmed.

Pregnancy 3 : Itchy rash on fingers, wrists, abdomen and soles, gradually worsening and becoming bullous by 28 weeks. Mouth clear.

Pregnancy 4 : Wrists, forearms, arms, shoulders and abdomen ; polycyclic areas of erythema with tense bullae forming at 18 weeks on forearms, abdomen, back, buttocks, thighs, legs and soles. Mucosae clear. Blood pressure 140/70 mm. Hg. Nikolsky's sign negative.

Treatment.—Barbiturates and phenergan ineffective. Sulphapyridine 1 g. reduced to 0·5 g. *t.d.s.* for 4 days ; itching persisted but lesions were paler. Cortisone 100 mg. daily followed by lessening of itching, but patient developed laryngo-tracheitis. Lesions worsened on same dose. Progesterone 50 mg. *b.d.* given and lesions worsened, with large new bullae and increased itching. Cortisone 100 mg. daily resumed. Developed patchy hyperaemia of soft palate and uvula, reddening and thickening of mucosa of larynx, with diffuse hyperaemia of both vocal cords (Mr. Charles Keogh). Itching persisted but the lesions became paler. Five days before the miscarriage, the itching was bad and there was a brown vaginal discharge. Three days before the miscarriage, the itching was less. The day before the miscarriage, all the lesions were improved and dry. There was no exacerbation after the miscarriage, the rash and itching continuing to diminish while the laryngitis was resolving. Ethinyl oestradiol 0·05 mg. *t.d.s.* was given for 5 days without detriment. Cortisone was gradually withdrawn after a week and stopped altogether one month after the miscarriage. Six weeks after the miscarriage, she menstruated. There was increased itching of the forearms for 4 days before the onset.

Investigations.—Blood :

	At 8 weeks.	At 20 weeks.
Hb	84%	102%
W.B.C.	—	12,000
Polys.	—	76%
Eos.	—	5%
Lymphos.	—	16%
Monos.	—	3%

Sputum : Normal flora. No acid-fast bacilli.
Chest X-ray : No focal lesion seen.
W.R. negative. G.F.T. negative.
Rhesus factor positive. Blood group O. Husband rhesus negative.
Urine normal.
Histology.—Subepidermal and intraepidermal bulla containing moderate number of eosinophils and scanty lymphocytes and neutrophils. Moderate dermal infiltrate of eosinophils lymphocytes and histiocytes.
Urinary ketosteroids at 20 weeks—15 mg. in 24 hours (volume : 3700 ml.).
Throat swab : At 22 weeks normal flora. No Vincent's organisms seen.
Twenty-four-hour rat ovarian hyperaemia pregnancy test :

At 22 weeks.	At 27 weeks.	At 28 weeks.
1/5+	1/5+	—
1/10−	1/10−	Negative

Cultures from purulent blisters revealed haemolytic streptococci and pyogenic staphylococci.
Foetus : No histological abnormality seen in pituitary, thyroid, thymus, lung, spleen, kidney or skin. Normal haemopoiesis in liver, rib and pancreas. Normal definitive and foetal cortex in suprarenal.
Placenta : Retroplacental haematoma and widespread but patchy plasma-cell and lymphocytic infiltration with a few eosinophils in decidua. No abnormality in foetal part of placenta (Dr. P. E. I. Stovin).

Case 11 (1956).

	Pregnancy.				
	1.	2.	3.	4.	5.
Age	23	29	35	36	43
Onset (weeks)	—	—	—	—	—
Remission in pregnancy (weeks)	—	—	—	—	—
Puerperal onset (weeks)	Rash followed "rapidly"	—	—	—	40⅔
Final clearance (weeks)	—	—	—	Miscarriage at 22 weeks	48
Sex of infant	M.	M.	M.	Not stated	F.

Pregnancy 1 : Heavy rash on arms, "under the skin", after delivery ; rapidly cleared.
Pregnancy 6 : Forearms, legs ; itching, followed 2 days later by blistering, with grouped vesiculation on an erythematous base. Trunk and mucosae clear. Nikolsky's sign positive.
Treatment.—Worsened with 10 days on dapsone, 100 mg. daily. Improved markedly on progesterone 40 mg. intramuscularly daily, no new blisters appearing. Further vesiculation on withdrawal of progesterone. Developed cellulitis near the left elbow and was given sulphadimidine for 4 days. Progesterone resumed at same time. Fresh lesions stopped appearing. Changeover from progesterone to cortisone 100 mg. daily was followed by greater improvement and virtual clearance within a week. Dose of cortisone gradually reduced and treatment stopped after 3 weeks.
Investigations.—Blood : Hb, 89% ; W.B.C., 13,500 (eos. 6%).
Tzanck test : No acantholytic cells seen. 17-ketosteroid excretion at 42 weeks, 8·0 mg. in 24 hours (volume 1440 ml.)
Twenty-four-hour rat ovarian hyperaemia pregnancy test at 42 weeks, negative ; at 49 weeks, negative.

TABLE I.—*Occurrence of Herpes Gestationis in Pregnancies of* 11 *Women.*

Case.	Pregnancy. 1.	2.	3.	4.	5.	6.	7.
1	0	0	+	+	+	+	..
2	0	+	+	..	..	..	..
3	0	+	+	+	+	+	..
4	+	+	..	..	..	..	..
5	0	+	..	..	..	..	..
6	0	+	..	..	..	..	..
7	P	+	..	..	..	..	..
8	0	P	..	..	..	..	..
9	P	+	+	..	..	..	..
10	+	+	+	+	..	..	..
11	?	0	0	0	P	..	..

0 = No herpes gestationis.
\+ = Onset during pregnancy.
P = Onset during puerperium.

Comments on Table I.

(i) The disease originated either in the first pregnancy or in a subsequent pregnancy.
(ii) Once H.G. had occurred, it recurred in all subsequent pregnancies.
(iii) Onset in the puerperium was followed by onset during pregnancy. The converse did not occur. Repeated onset during the puerperium did not occur.

TABLE II.—*Times of Onset of Herpes Gestationis in* 27 *Pregnancies Among* 11 *Women.*

8 or 9 weeks	2
12–24 weeks (including onset in one case 2 weeks after miscarriage at 18 weeks)	13
25–40 weeks	7
In first 3 days of puerperium	5

TABLE III.—*Times of Remissioss in* 22 *Pregnancies.*

33–40 weeks	8
Time not stated	7
No remission (in 4 there were miscarriages and eruption cleared by 34 weeks)	7

TABLE IV.—*Puerperal Recrudescences or Onsets in* 27 *Pregnancies.*

Recrudescence on 1st to 3rd day of the puerperium	10
Onset on 1st to 3rd day of the puerperium	4
Onset 2 weeks after miscarriage	1
No recrudescence (including 4 miscarriages)	6
Notes incomplete	6

TABLE V.—*Times of Final Clearance in* 27 *Cases.*

Up to 4 weeks after delivery	6
Up to 8 weeks after delivery	7
Up to 12 weeks after delivery	4
Up to 16 weeks after delivery	1
Time of final clearance not stated	9

TABLE VI.—*Ages of Mothers at Times of Pregnancies Complicated by Herpes Gestationis.*

	Pregnancies.
19–24	8
25–30	7
31–35	6
36–40	3
Over 40	3

TABLE VII.—*Ages of Women at Time of First Pregnancy Complicated by Herpes Gestationis.*

	Women.
19–24	4
25–30	2
31–35	3
36–40	1
Over 40	1

TABLE VIII.—*Births Resulting from 27 Pregnancies.*

Live	21 (including 1 pair of twins)
Still	6

(One woman had 4 stillbirths at 17, 18, 28, and 25 weeks; a second woman had a stillbirth at 33 weeks; a third woman had a stillbirth at 18 weeks, followed by a live birth.)

TABLE IX.—*Sex of Infants.*

(Where known.)

Males	13
Females	4

(Only 1 patient is known to have had infants of both sexes in pregnancies complicated by herpes gestationis.)

TABLE X.—*The Eruption of Herpes Gestationis.*

Distribution:
In 9 women the development of the eruption was centripetal.
In 2 women the development of the eruption was sometimes centripetal, sometimes centrifugal.
There was involvement of mucosae in 2 patients.

Type:
Pruritis ⟶ polycyclic erythema ⟶ papulo-vesicular, bullous and sometimes pustular elements.

Infantile rashes:
One had a pustular rash on head and lip.
One had a papular rash on face and chest.

TABLE XI.—*Blood Eosinophilia.*

%	
5–10	3
11–15	2
16–20	1
21–25	2
25–30	1

Tzanck test or histology:
Eosinophils in dermis or in dermal bullae in 6 cases examined.

Nikolsky's sign:
Negative in 3, positive in 1.

Rhesus factor:
Positive in 4, negative in 1.

Rat ovarian hypaeremia pregnancy test in active puerperal phase:
Negative in 6 cases tested.

TABLE XII.—*Response to Treatment.*

Drug.	Good.	Moderate.	Doubtful or none.	Bad.
Liquor arsenicalis	—	—	3	—
Sulphapyridine	—	1	3	—
Phenergan	—	1	2	—
Dapsone	—	1	1	2
Oestrogen	—	—	1	2
Progesterone	1	—	1	1
Cortisone or corticotropin	3	—	—	—

TABLE XIII.—*Some Herpes Gestationis Case Reports of Special Interest*

Author.	Pregnancy. 1.	2.	3.	4.	5.	6.	7.	8.	9.	10.
Gilbert (1840)	0	..	+	(Number of pregnancies not stated)						
Chausit (1852)	+	..	..	..	..	..	..	..	..	..
Hardy (1863) (quoted by Wilson)	0	0	+	+	+	+	+	+	+	+
Wilson (1867)	+	+	+	+	+	..	..	..	..	..
	0	0	0	+	+	+	+	+	+	..
Klein (1868)	0	0	+	..	..	..	..	..	..	..
Hebra (1872)	+(F.)	+	+(M.) (S-B.)	+(M.)	+	+	..	..	..	..
Milton (1872)	+(M.)	0 (S-B.)	0 (M.)	0 (M.)	+ (S-B.)	0 (F.)	0 (F.)	+ (S-B.)	..	..
Bulkley (1874)	+	+	..	..	..	..	..	..	..	..
Barendt (1898)	0	+(M.)	+(F.)	+(F.)	+(M.)	+(M.)	..	..	..	..
Pringle (1898)	+	+	+	+	+	+	+	Permanent eruption		
Crocker (1898)	0	0	0	P.	+	+	+	..	..	..
Lesser (1899)	P. (3–4 weeks)	+	..	..	..	..	..	..	..	..
Morris (1903)	0	0	0	0	0	0	0	0	P.	P.
Galloway (1901)	P.	P.	P.	+	..	..	..	..	..	..
Little (1917)	0	P. (1 week)	..	..	..	..	..	..	..	..
Whitehouse (1927)	P. (3 m.)	P. (4 days)	..	..	..	..	..	..	..	..
Pensky (1945)	0	0	0	0 (S-B.) (3 m.)	0 (S-B.) (2½ m.)	+	0 (S-B.) (3 m.)	0 (S-B.) (3 m.)	+	+

KEY: S-B. = Still birth. 0 = No herpes.
M. = Males. P. = Puerperal onset.
F. = Female. + = Onset in pregnancy.
m. = Months.

Comments on Table XIII.

(i) Repeated onset during the puerperium can occur (Morris, Galloway, Whitehouse).

(ii) Intermittency of occurrence is exceptional (Milton).

(iii) The sex of the infant has no relationship to the occurrence of the eruption (Barendt, Hebra).

ERYTHEMA MULTIFORME MENSTRUALIS RECIDIVANS.

An example of a rare disorder, erythema multiforme menstrualis recidivans, is reported :

For 35 years the patient has had an erythema multiforme-like eruption, recurring each month before menstruation, worsening during pregnancy and resolving at the menopause which was artificially induced.

Her menarche was at 14½ years. Coinciding with the first period, a rash consisting of red spots with blisters appeared on the face, neck and arms. It tended to be worse, with larger, more persistent lesions, in the spring and summer. There was a regular exacerbation each month, with malaise and irritability, one week before menstruation, continuing until the 5th day of the menses, which usually lasted 7 days and were regular in a 28-day cycle. Typical erythema multiforme iris lesions have been observed by different clinicians on several occasions.

The patient has been married twice. The first marriage was at the age of 20 and she bore 5 children, 4 male and one female. In each pregnancy the eruption worsened at about 6 months, diminishing again during the last 4 weeks of pregnancy. There was no puerperal flare-up. The rash faded about 10 days after the deliveries, only to recur each month before menstruation.

At the age of 30 the eruption became more severe and persistent, never clearing entirely, with lesions on the lips, hands, body and legs.

At the age of 35 she divorced her husband and at the age of 36 she remarried, this union resulting in another son when she was 38, and in a 6½ months' miscarriage. The eruption worsened, as before, in the completed pregnancy and also just before the miscarriage. Since the age of 40 the rash has been confined to the limbs. It has consisted of discs of erythema, with pigmentation, large bullae and crusting, particularly on the legs. About this time she began to develop recurrent attacks of secondary infection of the lesions on the legs. Crusting, pustulation, cellulitis and vegetations resulted, and on one occasion a purulent condition of the vermilion surface of the lips developed. Iris lesions had previously been noted on the calves. The patient has been under observation at St. John's Hospital for Diseases of the Skin and at The London Hospital for the last 15 years.

Treatment.—Many treatments have been given a trial at one time or another. Ascorbic acid was ineffective, as were antihistamine drugs; benadryl brought on a morbilliform eruption. Sulphanilamide, on one occasion, heralded in erythema nodosum. Sulphadimidine, sulphadiazine, sulphathiazole, sulphanilamide, and sulphapyridine were all ineffective. Penicillin injections seemed to help on one occasion. Redness of the mouth and aphthosis developed after the use of aureomycin. Dapsone was ineffective. Autohaemotherapy was ineffective. Cortisone in a dose of 100 mg. daily brought the condition completely under control in the intermenstrual phase but in the premenstrual week a dose of 150 mg. daily only partly controlled the eruption. Because of heavy and irregular menstruation and because the patient was suffering from flushes and sweats, it was decided, when she was 49, to produce an artificial menopause by irradiation. This was carried out by Dr. Shanks. No further outbreak occurred, the patient being left with a condition of vegetating pyoderma on the affected parts of the legs. This is slowly responding to topical agents.

Investigations.—Blood: W.R. negative, G.F.T. negative. Blood urea 45 mg. per 100 ml. E.S.R. varied between 11 and 80 mm. in 1 hour (Westergren). Blood count showed persistent hypochromic anaemia (Hb 68–80%). Eosinophilia not present until 1955 (13%).

A low vaginal swab revealed normal flora. The urine occasionally contained a trace of albumin. There was a mild urinary infection. The patient suffered from periodic epistaxes.

Skiagram suggested maxillary sinus infection, especially on the left side; the sinuses were aspirated, and cultures were sterile both aerobically and anaerobically. Skiagram of the chest showed no abnormality. There was occasional haemorrhage per rectum but sigmoidoscopy revealed no abnormality.

Dermatitis Herpetiformis with Pregnancy.

Fox (1954) was unable to find a case in the literature of a patient having D.H. treated prior to pregnancy and observed during pregnancy. In fact, Taylor

(1898) described such a case. We have examined the notes of 16 females diagnosed as suffering from D.H. There were 2 children, 8 women of child-bearing age, and 6 post-menopausal women. Of the 8 women of child-bearing age, only one had been observed before and during a pregnancy.

This woman developed skin trouble at the age of 30. She had miscarriages at 3 months at the age of 31, 38 and 39. She first attended the Skin Department at the age of 40 when she showed several small vesicles on the shoulders and back of the chest, with much pigmentation. The chest, elbows and knees were also affected and occasionally the forehead. In August 1950 she became pregnant and was observed through most of the pregnancy and the subsequent months.

June 1950 : Rash worse. Put on sulphapyridine 1·5 g. daily.
July : Improved on sulphapyridine but still very itchy.
2 *August :* Last menstrual period preceding pregnancy.
August : Improved (1 month).
September : Minimal relics (2 months).
October : More itchy (3 months).
November : Itching continued. Eruption of patchy erythema and excoriations on chest, elbows and knees (4 months).
December : Lesions more grouped ; more vesicles. Many scratch marks (5 months).
January 1951 : Looked better but severe itching (6 months).
February : Very itchy ; many scratch marks (7 months).
March : Severe itching later becoming less (8 months).
30 *May :* Macerated foetus at full term, male. Rhesus negative. The eruption persisted.
August : Severe itching. Fresh blisters on trunk and forehead.
July 1953 : Very severe and widespread. Ten days later was much improved (on sulphapyridine).

Other Dermatoses of Pregnancy.

Crawford and Leeper (1950) have expressed the view that H.G. is perhaps the only dermatosis peculiar to pregnancy. Pregnancy may be complicated by pruritus sine materia, by urticaria, sometimes of the papulo-vesicular variety, or by toxic erythemata. That great rarity, impetigo herpetiformis, may also occur in pregnancy. All of these conditions have to be differentiated from H.G. which often starts with pruritus sine materia and proceeds to papulo-vesiculation, before developing the more florid polycyclic, erythematous and bullous lesions.

In the puerperium an erythematous eruption is not uncommon. Seven such cases were recorded at The London Hospital in the 3 years 1949–51, an incidence of about 1 in 450 confinements. The rashes were punctate, macular, papular or vesicular, sometimes urticarial, sometimes purpuric, and involved the trunk and the limbs to an equal extent. They began between 2 and 7 days after delivery and persisted for up to one week. In another patient an urticarial type of eruption developed late in pregnancy and persisted until the eighth day after parturition.

Other Bullous Eruptions with Probable Hormonal Mechanisms.

Elliott (1938) reported a case of chorio-carcinoma with metastases in the lungs and an extensive bullous eruption. There was intense pruritus and grouped vesico-bullous lesions with pigmentation. Histology showed a superficial splitting of the rete malpighii with numerous polymorphonuclear cells and no preponderance of eosinophils. The Ascheim-Zondek test was strongly positive. Lesions of the mucosae were numerous, prominent and persistent, a phenomenon rare in H.G.

Hartzell (1918) reported a case of cancer of the uterus with an eruption resembling dermatitis herpetiformis. The rash disappeared promptly after surgical removal of the tumour, which was necrotic and the cause of a foul vaginal discharge.

Tillman (1950) described a woman who one week after the removal of a hydatidiform mole developed a generalized herpetiform eruption, mostly on the limbs and around the waist. The lesions consisted of circular red patches most of which after a day or two developed into vesicles. The Friedman test was positive about 3 weeks before the eruption but was negative 3 weeks after the rash developed. Some weeks later the Friedman test was again found to be positive and hysterectomy was performed, a chorion epithelioma being present (with histological confirmation). A Friedman test taken a fortnight after the operation was still positive and the rash persisted for some weeks after this operation, finally disappearing after radiotherapy and leaving pigmentation of the skin.

Theories of Aetiology.

The more popular theories of aetiology have included the following :

(i) Renal or hepatic disease : In no case of the present series was there evidence of this.

(ii) Virus infection : Brain (1936) and Bedson (1935) found no evidence of this.

(iii) Foetal or chorionic allergens or toxins : The characteristic post-partum recrudescence makes a foetal cause unlikely but suggests that retained placental products may be responsible. If this were so, a positive rat ovarian hypaeremia test for pregnancy would be expected at this stage. In each of six patients on whom this test was performed during the post-partum exacerbation, the result was negative. Case reports suggesting a chorionic basis are few (Elliott, 1938 ; Tillman, 1950).

(iv) Rhesus isosensitization has been suggested as an occasional cause. In this series the rhesus factor was positive in three patients and negative in one. The blood of the last patient's husband was also rhesus negative.

(v) Sensitization to a metabolite or hormonal product peculiar to pregnancy, the puerperium and the premenstrual phase : Many observations have been

made of increased serum and urinary gonadotropins in H.G. Should others confirm the finding of negative rat tests for pregnancy in the active puerperal phase of the eruption, it will have to be assumed that the excessive gonadotropins are not chorionic and are presumably of pituitary origin; or that abnormal metabolites are present with gonadotropic properties.

Sechi (1932) reported that treatment with corpus luteum extract was helpful. Weidmann in 1938 reported that the pruritus was proportional to the level of gonadotropic principle. Rostenberg (1940) found that urinary gonadotropins persisted post-partum; Keaty *et al.* (1951) found that the serum gonadotropins were increased and Gianotti (1954) also reported an increase of urinary gonadotropins. Kappeller-Adler in 1951 reported that gonadotropins decreased histaminase activity. Gianotti (1954) found that the blood histamine level was increased but was rendered normal by ACTH. It has been observed that progesterone or testosterone may be beneficial whereas oestrogens may aggravate the condition (Arnold, 1951; Beggs, 1952; Gianotti, 1956; Jones and Howard, 1953; Keaty *et al.*, 1951; Nonclercq and Bouffioux, 1955). In 1951 Bäfverstedt reported improvement from anterior pituitary extract, and Lindemann *et al.* (1952) described benefit from ACTH.

The Relationship Between Dermatitis Herpetiformis and Herpes Gestationis.

The similarities and differences between these two conditions can be expressed as follows:

Similarities.—They are both extensive, very itchy, bullous eruptions, with histological identity and eosinophilia. The erythematous variety of D.H. is clinically identical with H.G.

Differences.—

	Herpes Gestationis.	Dermatitis Herpetiformis.
Course	Pregnancy or puerperium only. Spontaneous clearance. Recurrent only with pregnancy or premenstrually.	Males or females; children or adults; persistent or intermittent, independent of pregnancy.
Development	Pruritis —→ polycyclic and polymorphic vesicobullous erythema. The spread is usually centripetal.	Usually small bullae. Rarely polycyclic vesicobullous erythema. Selective sites at shoulders, buttocks, elbows and knees. Spread, either centripetally or centrifugally, is unusual.
Physical signs	Excoriation slight. Scarring slight. Pigmentation slight. Oral lesions occur.	Excoriation pronounced. Scarring pronounced. Pigmentation pronounced. No oral lesions.
Effects of drugs	Dapsone, Sulphapyridine } Usually ineffective.	Dapsone, Sulphapyridine } Usually suppress the lesions and the itching.
	Oestrogens may aggravate. Progesterone may relieve.	Oestrogens, Progesterone } Ineffective.

Clinically, H.G. resembles senile pemphigoid more than ordinary D.H. A clinical resemblance to erythema multiforme is not supported histologically,

necrosis being absent in H.G. and in D.H. and often present in erythema multiforme.

Steroid Therapy in Pregnancy.

Margulis and Hodgkinson (1953) gave ACTH and cortisone to 28 pregnant women and found neither increase in the incidence of abortion nor any physical or mental abnormality in the infants. Barnes (1954), Jones and Howard (1953) and De Costa (1953) have made similar observations but recommend that large doses of these hormones should not be given early or late in pregnancy. Infants born of mothers receiving cortisone or having lately received it may show at birth withdrawal symptoms suggestive of adrenocortical insufficiency. Bickel and Secretan (1955) report a case of infantile hypoglycaemic coma relieved by glucose and cortisone.

Fortunately the necessity does not arise of giving steroid hormones early in pregnancy complicated by herpes gestationis because the symptoms rarely develop before the second trimester. The intensity of the eruption also tends to diminish towards the end of pregnancy. It is usually possible to reduce the dosage and finally to withdraw the drug a week or two before term. Postpartum exacerbations can safely be treated with cortisone.

Lindemann *et al.* (1952) were the first to report the successful management through pregnancy of a patient with herpes gestationis by means of ACTH and cortisone.

Conclusions.

(i) If D.H. is a specific disease, then H.G. appears to be a separate disease entity. H.G. is much more consistent than D.H. in its behaviour.

(ii) If D.H. is a reaction—a ' morphological clinical syndrome '' (Blaschko, 1889 ; Downing, 1945 ; Schultze-Frentzel, 1955)—then H.G. can be regarded as a well-defined variant.

(iii) The exciting cause of H. G. appears to be an abnormal metabolic or endocrine product of pregnancy, the puerperium and the premenstrual phase. The natural history suggests either that sensitization develops to this agent or that the agent is produced in excess, is incompletely destroyed, or is inadequately excreted. Increased gonadotropins found in blood and urine are unlikely to be of chorionic origin but may be of pituitary origin.

(iv) Cortisone is to-day the best drug for controlling H.G. and is safe for mother and infant, provided its use is limited to the second trimester and the earlier part of the third trimester. Prednisone should prove even more useful.

References.

Allen, C. W. (1889) *J. cutan. Dis.*, **7**, 291.
Arnold, H. L. (1951) In discussion on Keaty.
Bäfverstedt, B. (1951) *Acta derm.-venereol., Stockh.*, **31**, 470.

Barnes, A. C. (1954) *Obstet. Gynec.*, **3**, 322.
Barendt, F. H. (1898) *Brit. J. Derm.*, **10**, 125.
Bedson, S. P. (1935) *Ibid.*, **47**, 140.
Beggs, J. A. (1952) *Canad. med. Ass. J.*, **67**, 52.
Bickel, G. and Secretan, P. (1955) *Bull. schweiz. Akad. med. Wiss.*, **11**, 125.
Blaschko, A. (1889) *Berl. klin. Wschr.*, **26**, 115.
Brain, R. T. (1936) *Brit. med. J.*, i, 934.
Brocq, L. (1888) *Mschr. prakt. Derm.*, **7**, 625 ; 841.
——— (1891) *Traitement des Maladies de la Peau.* 2e. éd. Paris : Octave Doin, **1**, 799.
Bulkley, L. D. (1874*a*) *Amer. J. Obstet.*, **6**, 580.
——— (1874*b*) *Obst. Soc. Tracts*, B. Series, **1**, 15.
Bunel, J. B. H. (1811) *Essai sur le pemphigus.* Paris.
Chausit, M. (1852) *Ann. Mal. Peau Syph.*, **4**, 142.
Crawford, G. M. and Leeper, R. W. (1950) *Arch. Derm. Syph., Chicago*, **61**, 753.
Crocker, R. (1898) *Brit. J. Derm.*, **10**, 90 ; 118.
De Costa, E. J. (1953) *J. Mich. med. Soc.*, **52**, 613.
Downing, J. G. (1945) *Arch. Derm. Syph., Chicago*, **51**, 412.
Duhring, L. A. (1884) *J. Amer. med. Ass.*, **3**, 225.
Elliott, J. A. (1938) *Arch. Derm. Syph., Chicago*, **37**, 219.
Fox, T. C. (1898) *Brit. J. Derm.*, **10**, 119.
Fox, E. C. (1954) *Arch. Derm. Syph., Chicago*, **70**, 331.
Fox, T. (1880) *Arch. Derm.*, **6**, 16.
Galloway, J. (1901) *Brit. J. Derm.*, **13**, 413.
Gianotti, F. (1954) *J. Allergy*, **25**, 472.
——— (1956) *G. ital. Derm. Syph.*, **97**, 61.
Gilbert (1840) *cit* Bulkley (1874*b*).
Hartzell, M. B. (1918) *J. cutan. Dis.*, **36**, 501.
Hebra, F. (1868) *Diseases of the Skin.* London : New Sydenham Society, **2**, p. 368.
——— (1872) *cit.* Bulkley (1874*b*).
Howard, R. L. (1933) *Arch. Derm. Syph., Chicago*, **28**, 782.
Jamieson, W. A. (1898) *Brit. J. Derm.*, **10**, 73 ; 118.
Jones, G. S. and Howard, J. E. (1953) *N.Y. St. J. Med.*, **53**, 2463.
Kapeller-Adler, R. (1951) *Biochem. J.*, **48**, xxi.
Keaty, C. Jones, P. E. and Lamb, J. H. (1951) *Arch. Derm. Syph., Chicago*, **63**, 675.
Klein (1868) *cit.* Bulkley (1874*b*).
Lane, C. W. (1940) Quoted by Keaty, 1951.
Lesser, E. (1899) *Mh. prakt. Derm.*, **28**, 198.
Lindemann, C., Engstrom, W. W. and Flynn, R. T. (1952) *Amer. J. Obstet. Gynec.*, **63**, 167.
Little, E. G. (1917) *Brit. J. Derm.*, **29**, 125.
Margulis, R. R. and Hodgkinson, C. P. (1953) *Obstet. Gynec.*, **1**, 276.
Martius, H. von (1829) *Ueber den Blasenausschlag oder Pemphigus.* Berlin : G. Reimer.
Milton, J. L. (1872) *The Pathology and Treatment of Diseases of the Skin.* London : Robert Hardwicke, p. 205.
Morris, M. (1903) *Diseases of the Skin.* London : Cassell and Company.
Nonclercq, E. and Bouffioux, J. (1955) *Bull. Soc. franç. Derm. Syph.*, **62**, 201.
Pautrier, L. M. and Lanzenberg, P. (1926) *Ibid.*, **33**, 746.
Pensky, N. (1945) *Arch. Derm. Syph., Chicago*, **51**, 375.
Pringle, J. J. (1898) *Brit. J. Derm.*, **10**, 130.
Rostenberg, A. (1940) *Arch. Derm. Syph., Chicago*, **42**, 982.
Schultze-Frentzel, U. (1955) *Derm. Wschr.*, **132**, 1105.
Schweig, J. (1944) *Arch. Derm. Syph., Chicago*, **49**, 208.
Sechi, E. (1932) *G. ital. Derm. Syph.*, **73**, 1353.
Taylor, S. (1898) *Brit. J. Derm.*, **10**, 128.
Tillman, W. G. (1950) *Brit. med. J.*, i, 1471.
Weidman, F. D. (1938) *Arch. Derm. Syph., Chicago*, **37**, 232.
Whitehouse, H. H. (1927) *Ibid.*, **16**, 355.
Wilson, E. (1867) *On Diseases of the Skin.* 6th ed. London : John Churchill & Sons, p. 294.

FAVUS GENERALISATUS.

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GENERALIZED favus of the scalp and glabrous skin was seen fairly often in European countries during the nineteenth century and early part of the present century (Kumer, 1928; Sabouraud, 1936; Nobl, 1933). With the vast improvements in hygenic standards and in health services cases have more recently been recorded only from backward communities. It seems worth while, therefore, to report a case which was detected among the nomadic inhabitants living in the southern desert of this country.

Case Report.

A 15-year-old Bedouin boy was admitted to hospital in May 1954.

Past history and family history could not be elicited owing to the low intelligence of the patient and to linguistic difficulties as well. One member of the family was examined in the Outpatient Department during the time the patient was in hospital and was found to be suffering from tinea capitis favosa.

According to his uncle (the chief of the tribe), whitish, crusty lesions had appeared on the patient's scalp 7 years earlier. The patches had increased in size, new ones had appeared and the hair had started falling out. About 3 years ago similar lesions had appeared on the body and extremities; the lesions grew in size and tended to coalesce into big patches. The patient then became weaker and was neglected by the family since he could not work; according to the custom of the tribe he was doomed to die as he was unable to care for himself. He had spent the last few years mostly lying in a corner of the family's tent, being fed only occasionally. Contractures of the knees had developed which made walking almost impossible.

On admission the patient's temperature was 38·7° C.; he weighed 36 kg., could not walk or stand unaided and was generally emaciated; there was generalized indolent adenopathy and the abdomen was swollen. The spleen and liver were not palpable.

The scalp (fig. 1) was hairless except for a fringe of sparse whitish hairs; the bald area showed large polycyclic, brownish yellow crusts 3–5 mm. in thickness. These crusts, which were brittle and dry, were composed of round, concave, saucer-like elements 2–3 cm. in diameter which adhered fairly closely to the skin, and here and there were pierced by single hairs. The rest of the scalp was atrophic with irregular patchy pigmentation, and no follicles could be seen in these areas.

Large parts of the trunk and extremities were covered with crusts similar to those on the scalp, forming patches up to 30 cm. wide (figs. 2 and 3). After removal of these crusts the skin was found to be slightly atrophic, erythematous and scaly. Three finger-nails and all toe-nails showed thickening, longitudinal and transverse ridging, brittleness and thick grey subungual keratomas. No abnormal changes were seen in the interdigital clefts. The mucous membranes showed no pathological changes.

Laboratory and other examinations.—Urine: traces of albumin and a few leucocytes.

Blood examination : RBC, 3,400,000, with hypochromia ; Hb, 8·8 g. ; WBC, 13,600 with normal differential count.

Urea, sugar, chlorides, uric acid and cholesterol in the blood showed normal values. Total serum proteins 6·7 g. (albumin 2·7 g. ; globulin 4·0 g.).

Takata-Ara and cephalin tests positive ; thymol-turbidity 2·3 units : Wassermann reaction and Kahn test, negative.

E.C.G. normal. Skiagram of thorax : Normal. Intravenous pyelography : Normal ; kidney function appeared normal. Skiagram of the knees showed slight decalcification of the bones neighbouring the joint spaces. The dorsal and lumbar vertebrae showed severe decalcification and " fish vertebrae " formation.

Fig. 1.

Mycological examination.—KOH preparations of scales from the erythematous patches, hairs, nail-clippings and material from the subungual keratoses showed irregular septate and non-septate mycelial elements and arthrospore formation. The yellow crusts were composed of masses of hyphae, chlamydospores and amorphous detritus. *T. schoenleini* was grown in culture from hairs, scales and crusts.

Histology.—Specimen from a scutulum-covered lesion of the right forearm : The central part of the section shows a cup-like depression. The depression is filled by a semilunar mass staining faintly bluish with haematoxylin and eosin and consisting of amorphous material with a large number of segmented hyphae in various stages of arthrospore formation. These hyphae lie predominantly in a direction perpendicular to the underlying epidermis (Fig. 4) ; the latter is well defined from the fungal mass and is thinned to 2–3 layers, with flattened papillae. The upper edge of the depression shows merging of the keratinous layer into the fungal mass. The epidermis around the depression shows marked acanthosis.

In PAS-stained sections the semilunar mass is seen to consist of a dense maze of segmented hyphae with arthrospore formation and detached individual spores.

The peripheral part of the mass shows predominantly unsegmented hyphae (Fig. 4, inset).

In the cutis there is a marked mainly perivascular and periadnexal inflammatory reaction, consisting of many granulocytes, histiocytes, round cells, eosinophils and mast cells.

Specimen from an erythematous patch of the right arm: The section shows marked parakeratosis and crusts on top of an acanthotic epidermis which has thinned and elongated rete pegs. In the papillary and subpapillary layer is a dense infiltration composed of round cells, histiocytes and plasma cells. Many enlarged blood vessels showing swollen endothelial cells can be seen in the inflammatory area.

FIG. 2.

FIG. 3.

The PAS-stain reveals masses of densely arranged hyphae in the keratinous layer (Fig. 5), mainly in the follicular openings. The hyphae are of irregular width and size, septate and non-septate with irregular branching and many of them show terminal club-like swellings. Crusts lying on top of the parakeratotic layer are stained deep red-violet and consist of amorphous material with a dense mesh of not very clearly defined fungal elements.

Course.—The patient was given a high protein diet with supplements of vitamins A, B and D by mouth and liver extract parenterally. An ointment of chrysarobin 2%, pyrogallol 2%, and ichthammol 5% was applied daily to all affected areas after which the crusts started to fall off. The scalp was epilated with x-ray followed by mechanical epilation using a colophonium beeswax cap: a 10% alcoholic solution of iodine was afterwards applied daily to the epilated scalp and to the erythematous patches on the body.

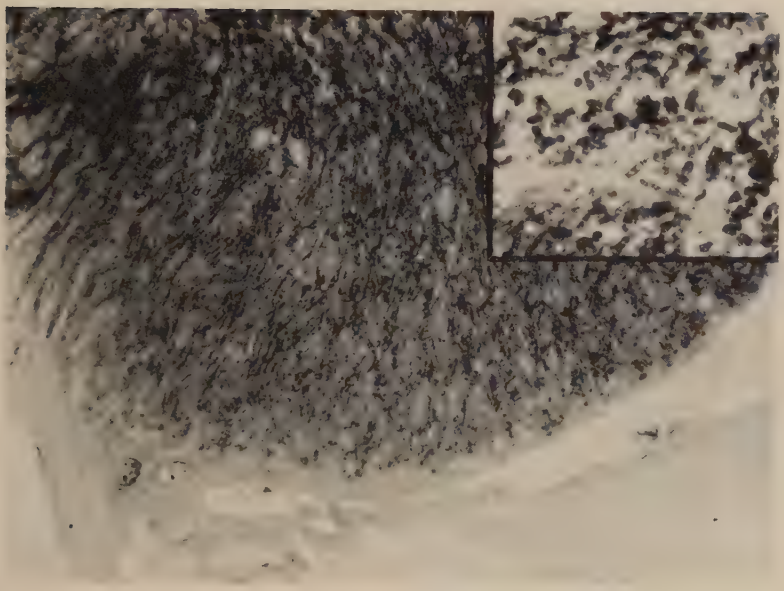

FIG. 4.—The fungal elements can be seen lying predominantly perpendicular to the underlying epidermis. Inset: Hyphae and spore-like structures in the peripheral part of the scutulum. PAS stain. × 360.

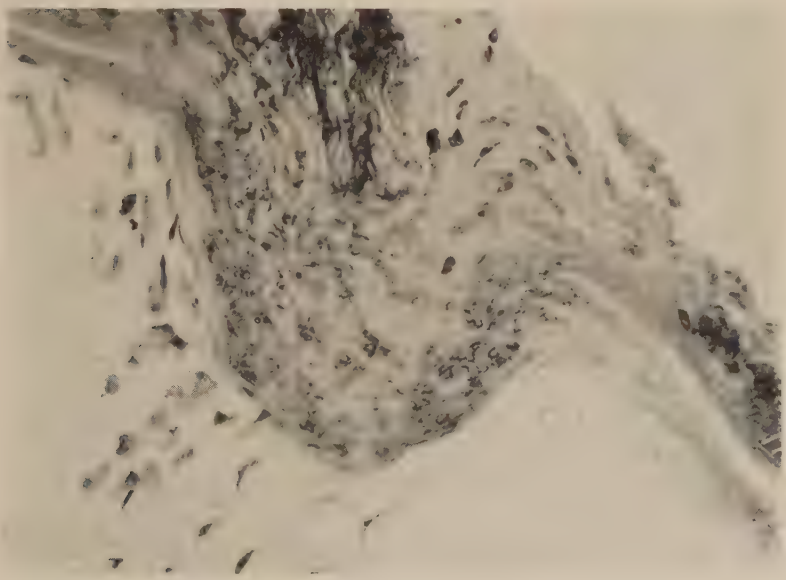

FIG. 5.—Hyphae invading thick keratinous layer. PAS stain. × 360.

The patient's general health improved rapidly; he gained in weight and the temperature fell to normal on the 12th day after admission. The contractures of the knees vanished, the patient's posture became normal and he was able to walk freely. In July he was discharged from hospital, having gained 6·5 kg. in weight, and was instructed to report for further ambulatory treatment.

Comment.

Although the health services of this country are on a high level there are still nomadic Bedouin tribes living in the desert under the lowest hygienic conditions.

Generalized tinea favosa is a rare condition though a number of cases with more or less general involvement has been reported from countries (Hadida *et al.*, 1953; Hadida and Marill, 1947; Lourier and Reiff, 1932) in which part of the population lives under extremely primitive conditions (Dostrovsky *et al.*, 1955). Of 806 cases of tinea favosa treated in this department the present patient is the only generalized case. Special personal circumstances and a low general standard of living are usually responsible for the generalized variety. In the present case the low hygienic conditions and the customs of the tribe led to complete neglect of the patient and this induced the cachectic state which enabled the infection to spread unchecked. There was no indication of any other factor, such as a toxin secreted by the fungus, leading to the severe course of the infection and to the osteoporotic changes. It is likely that the latter changes were due to the prolonged immobility and to chronic malnutrition.

Summary.

A case of generalized favus with emaciation, contractures of the knee joints and osteoporotic changes in a 15-year-old boy is described.

T. schoenleini was identified as the causative organism.

References.

Dostrovsky, A., Kallner, G., Raubitschek, F. and Sagher, F. (1955) *J. invest. Derm.*, **24**, 195.

Hadida, E., Marill, F. G., Streit, R. and Schousboe, A. (1953) *Bull. Soc. franç. Derm. Syph.*, **63**, ann. t. **60**, 279.

Hadida, E. and Marill, F. G. (1947) *Algérie méd.*, **50**, 553.

Kumer, L. (1928) *in* Jadassohn's *Handbuch der Haut- und Geschlechtskrankheiten.* Berlin: Julius Springer, vol. **11**, p. 655.

Lourier, A. G. and Reiff, M. G. (1932) *Ann. Derm. Syph., Paris.*, **7**. sér. t. **3**, 912.

Nobl, G. (1933) *Wien. med. Wschr.*, **83**, 749.

Sabouraud, R. (1936) *in* Darier, J., *et al.* *Nouvelle pratique dermatologique.* Paris: Masson et Cie, vol. **2**, p. 121.

ROYAL SOCIETY OF MEDICINE.

SECTION OF DERMATOLOGY.

President—Dr. Louis Forman.

20 December 1956.

Kyrle's Disease.—Dr. D. I. Williams.

A woman, aged 38, a tobacco worker.

History.—In 1943, she noticed lesions on the skin of the legs. They first appeared in the lower third of the back of each leg and have, over the years, spread to involve most of the leg between the knee and ankle ; in the last twelve months lesions have appeared on the lower thighs. No other part of the skin has been involved. Some of these spots seem to disappear, but new ones have materialized, so that the total number of spots is now twice the number present five years ago. There is no irritation but a little bleeding if the scale comes off. It is thought that the lesions occur less frequently in the summer. Lesions that heal leave a small white depressed scar. No treatment, by mouth or locally, has affected the spots.

Past history.—Unhelpful. The patient has had no other illnesses of moment.

Family history.—Her mother and two sisters have dry skins ; her father and two brothers have normal skins. No other member of the family has been similarly afflicted.

Examination.—There are many follicular lesions on the legs and lower thighs. The lesions are mainly golden-brown in colour, about $\frac{1}{8}$ in. in diameter and mostly covered by a disc of scale. Many of these discs can be picked off like a lid and leave a shallow pit. The skin of the legs is dry.

Histology (Professor H. A. Magnus).—The section shows two areas of the epidermis in which there is a considerable degree of hyperkeratosis with marked atrophy of the underlying epidermis. In the corium there is a diffuse proliferation of the lymphocytes and reticulo-endothelial cells. Elsewhere the epidermis is surprisingly normal with an absence of acanthosis or other change.

Treatment and progress.—Vitamin A in doses up to 500,000 units a day has had no effect on the lesions.

Comment.—Some members will have seen the moulages of Kyrle's disease, both at the Hôpital Saint-Louis in Paris and at St. John's Hospital for Diseases of the Skin. This patient has not the lumps of horn which occur in true Kyrle's disease, penetrating deeply as they should. People who have written about this subject seem quite happy to accept these minor variations of the disease. If we do not call it Kyrle's disease I do not know what to call it.

Discussion.

Dr. C. D. Calnan : This case is similar to three cases which were shown in 1953 at a series of meetings at St. John's Hospital. The opinion was that these were not Kyrle's disease. But when you see a gross case of Kyrle's disease the patients almost always also have these tiny lesions.

References.

Cairns, R. J. (1953) *Trans. St. John's Hosp. derm. Soc., Lond.*, **32**, 70.
Calnan, C. D. (1953) *Ibid.*, **32**, 69.
Waddington, E. W. (1953) *Ibid.*, **32**, 67.

Dr. H. Haber : I agree that this is a case of Kyrle's disease. The histology is the same as we found in all our cases.

The following cases were published in *Proc. roy. Soc. Med.*, **50**, 277 :

Melanosis.—Dr. D. I. Williams.
Tuberculoid Leprosy.—Dr. E. N. M. Johnston (for Dr. H. J. Wallace).
Dimorphous Leprosy.—Dr. E. N. M. Johnston (for Dr. H. J. Wallace).
Atrophie Blanche.—Dr. R. H. Marten (for Dr. Sydney Thomson).

The following cases also were shown :

Case for Diagnosis.—Dr. D. I. Williams.
Syringocystadenoma.—Dr. R. H. Marten (for Dr. D. I. Williams).
Blue Naevus.—Dr. R. H. Marten (for Dr. S. Thomson).
Macroulcus Perstans (Castellani).—Dr. E. Lipman Cohen.

NORTH OF ENGLAND DERMATOLOGICAL SOCIETY.

Leeds, 9 April 1957.

Lichen Sclerosus.—Dr. J. T. Ingram.

A single woman aged 54.

Typical lichen sclerosus about top of natal cleft and some atrophy of vulva ; small lesions over upper chest and shoulders and neck.

Four years' soreness of tongue—glazed and leukoplakic, like lichen planus, with large areas of pyogenic granuloma on dorsum. Some contact affection of buccal mucosa. Worn false teeth 20 years.

No biopsy. Blood W. R. and Kahn negative. Blood picture normal. Skiagram of chest negative. Dental report negative.

Weight : 8 st. 10 lb. B.P. 130/80. Urine clear. Menopause 5 years ago. No Candida seen on direct examination—a few colonies on culture.

Marked response to hydrocortisone locally and prednisone 5 mg. *b.d.* by mouth.

Dr. I. B. Sneddon.—I have a case with some of the features of this patient but in which there was an association of lichen sclerosus of the vulva with benign mucous membrane pemphigus affecting the eyes and mouth. The appearance of the tongue with the erosions and granulomas closely resembled this one.

Multiple Skin Necroses [Arteriolar].—Dr. J. T. Ingram.

A man aged 26, married with one son ; a joiner.

Family history.—Negative.

Previous history.—Haematuria from renal stone, 1955.

Patient has presented for 18 months an eruption which started on the right leg and soon affected trunk and proximal parts of limbs. It is characterized by erythematous and papular and necrotic lesions $\frac{1}{4}$-in. in diameter without surrounding inflammation and healing by depressed scarring. There appear, roughly, six lesions a month. No itching or discomfort.

Mantoux negative 1–100. Blood picture and E.S.R. normal. Urine normal. General examination and investigations all negative, including skiagram of chest and abdomen and sigmoidoscopy. B.P. 145/95. W.R. negative. No L.E. cells. Serum proteins and electrolytes normal.

Histology of numerous lesions taken at various stages has shown a block necrosis of epidermis and of wedge-shaped underlying corium consequent on obstruction, from vasculitis involving all coats, of a small arteriole. The affected area is cast off leaving a guttate scar.

The condition has been described by Degos and others (*papulose maligne atrophiante*), 5 or 6 patients in all. The majority of them have died from acute abdominal catastrophes due to the development of similar lesions with perforations in the intestine.

Urticaria with Erythroderma. ? Cutaneous Mastocytosis.—Dr. F. F. Hellier.

A man aged 48.

History of persistent urticaria for 9 years which has not responded permanently to any treatment though it has been partly controlled with antihistamines.

On examination, even when the urticaria is quiescent, the skin, particularly over the back, is red, almost like an erythrocyanosis.

General examination and laboratory findings were negative except that a biopsy of the skin shows an infiltration of the upper dermis in which are a moderate number of mast cells.

Cutaneous Periarteritis Nodosa.—Dr. F. F. Hellier.

A man aged 39.

Three years ago he suffered from dizzy attacks and cramps in his limbs which lasted about 2 years and for which no cause was found.

One year ago he developed a painful red area on the right thigh and about 2 months ago a similar lesion on the right ankle ; now it has appeared on the outer side of the left foot.

On examination there is a very tender area 5 in. × 3½ in. on the outer side of the right thigh rather reticular reddish-blue with nodes which are just palpable. There is a similar lesion on the outer side of the right heel and on the outer side of the left foot. These latter areas show excessive sweating.

General examination was negative except for an enlarged spleen. Blood count normal. E.S.R.1. B.P.120/80. Urea clearance test normal. Serum proteins normal.

Histology showed two medium sized vessels obstructed by obliterative endarteritis possibly associated with a previous inflammatory reaction.

The patient did not improve with prednisone, 5 mg. 4 times daily but when this was increased to 10 mg. 4 times daily his pain disappeared and the lesions became much less conspicuous.

This case clinically resembles the cutaneous type of periarteritis nodosa but the history of vertigo and the enlarged spleen suggest that there may be a more generalized vascular change despite the negative laboratory findings.

Manchester, 14 May 1957.

Lichen Ruber Moniliformis [Kaposi]. –Dr. C. W. Marsden (for Dr. P. B. Mumford).

A woman aged 25.

History.—The rash began after vaccination when the patient was a few months old. It has been present on the face, trunk and limbs as long as she can remember, but she believes that new lesions have appeared, particularly on the abdomen. The feet have been involved only in the past three years. There were no symptoms until six months ago when the right leg and left calf began to itch intermittently.

During cold weather the rash becomes hard and cracked. It is improved by sunlight, by oily preparations and by hydrocortisone ointment.

The rash improved temporarily with the peeling after scarlet fever in childhood. It cleared during an attack of jaundice in 1952 but recurred later.

There is no family history of skin trouble.

Examination.—The rash involves all areas of the body. The individual lesions are multiform, many being shiny mauve flat-topped papules closely resembling lichen planus ; these are well marked on the flexures of the wrists. Other lesions, particularly on the flexural aspect of the forearms and on the abdomen, are flat-topped shiny yellow papules with surrounding brown discoloration. There are also pigmented macules well marked on the abdomen.

The lesions on the face are brownish-red and scaly, simulating a superficial lupus erythematosus. Dark red linear eruptions extend down the extensor aspects of the arms, with the striae well marked. There is some scaling. Linear lesions are also present on the legs, but here simulate lichen planus hypertrophicus. The lesions on the palms and soles are hyperkeratotic, grey, with pits and keratotic plugs.

There is a scar on the right cornea (the patient states that she had three lesions on this eye ; those at the ages of 7 and 14 years being diagnosed as ulcers, and that at the age of 21 years as keratitis).

Histology.—The epidermis is thin and irregular, with areas of acanthosis and hyperkeratosis. In the papillary layer there is a cellular infiltrate, not dense, consisting of plasma cells and lymphocytes.

Comment.—The distribution and chronicity of the eruption, together with the clinical similarity of many of the lesions to lichen planus and the absence of the histological appearance of that condition, agree with the criteria on which Wise and Rein (1936) labelled their case lichen ruber moniliformis. The individual lesions and the well-marked linear bands are in closer agreement with Kaposi's original description (1886). There are however differences in that Kaposi described keloid-like nodules, and the histology in his case showed a dense cellular infiltration with giant cells.

Dr. J. T. Ingram: I think this is a case of Porokeratosis of Mibelli.

References.

Kaposi, M. (1886) *Vrtljschr. Derm.* **13**, 571.
Wise, F. and Rein, C. R. (1936) *Arch. Derm. Syph. Chicago*, **34**, 830.

? Lupus Erythematosus.—Dr. G. Auckland.

A woman aged 26.

History.—About 3½ years ago she developed a well-defined red scaly patch on her left breast just below the nipple. She attended the Hospital as a suspected Paget's disease and a biopsy was done. As a result of the report, which suggested lupus erythematosus, she was given a course of bismuth injections into the left upper arm. Shortly afterwards a red scaly patch developed at the site of the injections, identical in appearance with the original lesion.

Examination.—Two red, scaly well demarcated discoid patches on the left breast (2·0 × 1·7 cm.) and left upper arm (2·0 × 2·5 cm.).

Histology.—The upper cutis shows gross oedema with sub-epidermal bulla formation. In the deeper corium there is some fibrosis and groups of lymphocytes surrounding cuticular vessels (Dr. Coburn).

Treatment.—Chloroquine sulphate for 5 months had no effect.

Generalized Acrodermatitis Continua.—Dr. L. Wertheim.

A woman aged 30.

History.—Since the age of 7 this girl has suffered from attacks of a generalized eruption of pustules. The major attacks occurred at the ages of 16, 19, 24, 26 and 29. In between the generalized attacks, which have lasted for a few weeks to several months, her skin has never been entirely clear of small pustules; they have been mainly on the arms and legs and on the left heel which has been permanently involved.

The generalized attacks were characterized by a spread of papular and pustular lesions developing rapidly in successive crops and involving the whole skin surface except the scalp, face, palms and soles; where the pustules ruptured, large red denuded areas developed. In the recovery phase, pustulation gradually ceased and the skin became dry, presenting the features of exfoliative dermatitis.

The attacks have been associated with complete loss of hair and occasional shedding of the finger nails, pyrexia, malaise and headaches.

Examination.—A few pustules on an erythematous base are present on the left heel. On the trunk and limbs there are scaling macules and discrete pinhead-sized pink papules. Extensive striae atrophicae are present on the breasts.

Investigations.—Repeated cultures from pustules have shown the presence of *Staphylococcus aureus* sensitive to antibiotics.

Blood cultures sterile.

Serum calcium 8–10 mg.%.

Local and systemic treatment with antibiotics has been without benefit. Some improvement resulted from ACTH or prednisolone in combination with Terramycin.

NORTH BRITISH DERMATOLOGICAL SOCIETY.

Glasgow, March 1957.

Papulonecrotic Tuberculide with Lupus Erythematosus.—Dr. D. C. Devine.

A woman aged 34, first noticed a red scaly patch on the left side of her nose four months ago.

Family history.—Sister died from pulmonary tuberculosis 14 years ago.

Past history.—Nothing of note.

On examination. –There is a slightly raised infiltrated red scaly lesion on the left side of her nose. On the extensor aspects of both elbows are numerous scattered dusky red infiltrated papules and scars.

General medical examination—nothing of note.

Skiagram of chest revealed calcified lesions of upper and middle zones.

Treatment.—It was considered that this was probably a papulo-necrotic tuberculide of the forearms and that the lesion on the nose might be of similar nature. She was put on streptomycin 1 g. four times per week and I.N.H. 1 tablet *t.i.d.* for four weeks. Lesions of the forearms healed and have remained so but that of the nose was unaffeced. On Avlochlor therapy the lesion seemed to improve for a time but relapsed. Mepacrine was then tried but was discontinued in one week because of nausea and vomiting. When seen on 17 : ii : 57 she had been on $\frac{1}{2}\%$ hydrocortisone lotion for two weeks. The lesion was somewhat larger than at the onset but there was no scaling. Patulous pores covered the surface and the edge was somewhat rolled. This latter appearance however had disappeared on 5 : iii : 57 and features were clinically those of lupus erythematosus.

Lichen Nitidus.—Dr. William B. McKenna.

A child aged 2 years four months.

Since the age of fourteen months this child has had small round reddish-brown spots which according to his mother first appeared on the neck and rapidly spread to involve lower back, abdomen and thighs.

On examination.—On the lower abdomen, genitalia, back, neck and eyelids there are numerous discrete pinhead sized circular to polygonal papules which show a tendency to coalesce in the suprapubic region.

General medical examination—nothing of note.

Comment.—A tentative diagnosis of lichen nitidus was made and a biopsy suggested, but refused. One month later the lesions showed increased pigmentation and on the right forearm there was a Koebner formation.

The mother later permitted a biopsy and the histological picture was consistent with lichen nitidus.

The following cases also were shown :

Steatomata. Sarcoidosis.—Dr. J. F. Ferguson Smith.

Pityriasis Lichenoides et Varioliformis Acuta [Habermann].—Dr. D. C. Devine.

Erythrose Peribuccale Pigmentaire [Brocq].—Dr. A. Girdwood Fergusson.

Molluscum Sebaceum—A Follow up after Plastic Surgery.—Dr. William B. McKenna.

Progressive Ulcerative Granuloma of Face and Scalp with Pulmonary Lesions. Erythema Perstans. Carbromal Eruption.—Dr. James Sommerville.

Sarcoid.—Dr. R. Workman Carslaw.

BOOK REVIEWS.

Allergic Dermatoses.*

This useful little book is concerned with the dermatoses caused by physical agents. In the first chapter, the editor describes the present status of differentiation of allergic and non-allergic hypersensitivity to physical agents.

Six other writers have contributed sections on hypersensitivity to trauma, eczematous, polymorphous, and urticarial sensitivity to light, hypersensitivity to heat, and cutaneous sensitivity to cold. In many of these cases, the evidence of allergic hypersensitivity is inconclusive, so that the volume is, in fact, a fairly complete description of all the dermatoses produced by physical agents. It is a great achievement to have compressed so much useful information on this important subject into so small a space. H. T. H. W.

The Semon Atlas.*

This atlas may well be included among the dermatological classics. Each coloured illustration of a patient suffering from a certain disorder is faced on the opposite page by a clinical description, including discussion of aetiology and treatment. One should imagine a demonstrator speaking to an audience with many asides. This edition represents a blend of the long experience of the original author, more modern views of his collaborator, Dr. Wilson, and suggestions and proof-reading by Dr. Stephen Gold.

I have read this edition from cover to cover and am reminded how the dermatological scene is changing. Seborrhoeic dermatitis is no longer "perhaps the commonest of skin diseases". Among many examples of sound old advice are: Recommendation to avoid the use of a hot cautery point during ether anaesthesia, remarks on the diagnosis of scabies and syphilis, disorders which are no longer as common in England as they are elsewhere, and the advice for general practitioners dealing with causes of contact dermatitis which is most valuable.

In spite of this, there are deficiencies which may be associated with the difficulty of producing such a fine atlas at a relatively small cost. A more balanced arrangement of the typescript, on certain pages that at present look rather like galley proofs, might be devised for future editions. Some of the illustrations would be more helpful if details were made clearer, such as those in the chilblain plate, the brownish pigmentation in urticaria pigmentosa, or nodules in the illustration of leprosy.

In the description of Bazin's disease, it is stated that lesions occur mainly on the calves, rarely on the front of the legs, whereas the illustration seems to show the opposite. In addition, I think it would be difficult for the non-specialist to spot necrobiosis lipoidica from the picture given. The illustrations are for the most part, however, extremely good. Excellent ones include those of infantile atopic eczema, favus and tinea, and Besnier's prurigo, which once again reminds me of a print from one of the "old masters".

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* *Allergic Dermatoses* (1957). R. L. Baer. New York University Press. Philadelphia and Montreal: J. B. Lippincott Co. Pp. 110. Price 24*s*.

* *An Atlas of the Commoner Skin Diseases*. H. Semon and A. Moritz. Assisted by H. T. H. Wilson (1957), 5th Edition. Bristol: John Wright & Sons Ltd. Pp. 371, with 153 Plates. Price £5 5*s*. 0*d*.

Apart from these generalities, there are some detailed points which ought not to be overlooked. It is a pity to see Mitigal, which is no longer on the market, mentioned in the treatment of scabies, and in contrast, no mention of prednisone in the treatment of lupus erythematosus or pemphigus vulgaris. The description of vascular naevus might confuse some, as in the fourth paragraph treatment of port-wine stain is discussed, whilst a little later, a special paragraph is headed in large print " Naevus Flammeus ". I mention this point because it could cause confusion to those dealing with translation into foreign languages. Spelling mistakes which should be corrected include : ulcus tenebrans, monolial, largactol, and majentae. I would also have thought that 150,000 units of penicillin daily in divided doses for pyocyaneus infection was far too small.

Despite these slight failings however, it must be said that no atlas gives better value for money, and the authors are to be congratulated. G. B. M. H.

DERMATOLOGÍCA. REVISTA MEXICANA.

This is a new journal that is to appear four times a year as the official journal of the Mexican Antileprosy Association. It contains articles on leprosy and dermatology for the specialist and others for the general practitioner, reviews of books and some abstracts from foreign journals. The first number has articles on a human infection with *Mycobacterium ulcerans*, a new method of staining elastic fibres, a kineosological study of leprotic hands where the main nerve trunks have been involved, a case of cutaneous amoebiasis, an early case of pinta, and for the G.P. an article on cutaneous epitheliomas. G. W. B.

BRITISH ASSOCIATION OF DERMATOLOGY.

The thirty-seventh Annual Meeting of the British Association of Dermatology was held in London on 25, 26, and 27 July 1957, under the presidency of Dr. W. N. Goldsmith. It was attended by about 100 members and numerous guests. Amongst those members from abroad were Drs. R. F. A. Becke, F. C. Florance, L. W. Linn, E. Murray-Will and C. P. C. Reilly from Australia, Dr. B. H. R. Hill from New Zealand, Dr. G. V. Clarke from Nigeria, Dr. L. J. A. Loewenthal from South Africa and Dr. Cleveland J. White from the U.S.A.

At the Annual Business Meeting, the Hon. Treasurer reported the continued prosperity of the Association. On his recommendation it was agreed that in satisfactory circumstances the sum of £2500 should be offered to the Royal College of Physicians for the establishment of a " Willan Room ". This was intended to house the portrait and works of Willan and would be available for use by the committees of the Association. The Hon. Editor indicated that the state of the Journal would enable him in future to give contributors a number of reprints of their papers free of charge. It was decided that next year's Annual Meeting should take place in Cardiff, under the presidency of Dr. J. H. Twiston Davies.

The following Officers were elected for 1957–58 :

President :	Dr. J. H. Twiston Davies.
Vice-President :	Dr. G. A. Hodgson.
Hon. Treasurer :	Sir Archibald Gray.
Hon. Secretary :	Dr. H. J. Wallace.
Hon. Editor :	Dr. F. Ray Bettley.
Hon. Assistant Editors	Dr. G. W. Bamber.
	Dr. P. J. Hare.

Members of Committee : Dr. T. E. Anderson, Dr. P. Borrie, Dr. Clifford Evans, Dr. L. Forman, Dr. S. C. Gold, Dr. W. N. Goldsmith, Dr. H. W. Gordon, Dr. R. Hall, Dr. I. B. Sneddon.

Professor J. R. Squire was elected an Honorary Member and Dr. Louis Brunsting, Dr. Hamilton Montgomery and Professor Werner Jadassohn were elected Honorary Foreign Members.

The following were elected to be Ordinary Members : Dr. J. G. Coburn, Dr. T. Cochrane, Dr. E. Lipman Cohen, Dr. A. Jarrett, Dr. F. J. V. Jenner, Dr. C. W. Mackenzie, Dr. T. Parkin.

Drs. J. E. Cramer, R. H. King and L. A. Musso were elected members of the New South Wales Branch.

The first morning's papers were devoted to a discussion of radioactive isotopes. Professor J. E. Roberts opened with an account of masterly simplicity and exemplary brevity in which the properties and applications of these substances were described. Drs. A. M. Jellife and E. W. Emery illustrated the clinical use of the commoner agents mainly in the treatment of superficial malignancies and port-wine stains. Drs. M. Garretts and E. A. Fairburn described independent studies of dermal blood flow by means of radioactive sodium.

The afternoon was spent in the discussion of some aspects of keratinization. Professor L. S. Penrose showed how the examination of anomalies of keratinization provided a useful genetical tool and held out the prospect of help for the clinician in the classification and understanding of apparently disparate disorders. Dr. M. L. Ryder

neatly combined the day's themes in describing studies of hair growth by means of autoradiography. If these spectral aspects were unfamiliar to most, Dr. A. Jarrett's paper on fluorescence microscopy as applied to the study of keratinization led his audience into highly coloured phantasmagoria of histology. Any remaining contact with the simple world of " routine H. & E. " was regretfully abandoned during Dr. E. H. Mercer's description of keratin formation as seen by the electron microscopist.

The next morning's papers restored the meeting's self-esteem by considering the elusive but beguiling subject of sarcoid. Dr. D. I. Williams sketched the history of the understanding of the disease and Dr. John Anderson described its clinical vagaries in the various tissues of the body. Dr. K. M. Citron discussed its immunological aspects, Dr. R. Kooij the significance of the Kveim test and Dr. R. P. Warin added to the recorded instances of the familial occurrence of the disease.

Dr. Alan Lyell described a striking case of " dermatitis pustulosa " which the meeting agreed must be an unusual pustular form of psoriasis. Dr. W. R. Bett concluded the day's deliberations with a further sample of his sardonic humour concerning the " History, Mythology and Folklore of the Hair (or its absence) ".

The final morning was spent in a clinical meeting at University College Hospital, where a gathering of thirty varied cases of cutaneous calamity stimulated not unprofitable discussion.

The social events of the meeting comprised the President's gracious and hospitable reception and cocktail party at the Lansdowne Club, a visit to the House of Commons under the kind patronage of the Rt. Hon. Henry Brook, M.P. and trips on Regent's Canal and to Osterley House. The Annual Golf match was won by Dr. Reginald Hall. A dinner was held at the May Fair Hotel and proceeded without disaster despite the inadvertent arrangement of thirteen guests at the top table and thirteen tables " on the floor ". Dr. H. R. Vickers proposed the health of the guests, to which Sir Clement Price Thomas replied. Dr. P. J. Hare proposed the health of the President and Society, acknowledged by Dr. W. N. Goldsmith.

CURRENT LITERATURE.

SOLAR DERMATITIS. John H. Lamb, Phyllis E. Jones and Thomas B. Maxwell. (1957) *Arch. Derm. Syph. Chicago*, **75**, 171.

This article is devoted to the clinical and histological differential diagnosis of the plaque-like type of polymorphic light eruption and chronic discoid lupus erythematosus. Although the former is much more common in males and the latter in females, and there is clinical evidence of low level of circulating male hormones in male patients with plaque-like light eruptions, such factors are not of much help in diagnosing an individual case. Other clinical and histological features are even less characteristic. J. K.

ANTIFUNGAL ANTIBIOTICS IN CLINICAL MEDICINE. Harvey Blank. (1957) *Arch. Derm. Syph., Chicago*, **75**, 184.

Antifungal antibiotics prepared from the streptomycetes containing a polyene chromophore chemical group appear of clinical value or promise. Nystatin, amphotericin and trichomycin have been used and appear to work in a comparable manner. Oral administration has been disappointing and gives rise to undesirable side effects. Local application should be in powder form (100,000 units per gram of talc.) Shake lotions may be used but quickly lose their potency and should be discarded after a week. Such applications are effective in cutaneous moniliasis. J. K.

" THE SCHIFF-POSITIVE, NONGLYCOGEN MATERIAL " IN THE HUMAN ECCRINE SWEAT GLANDS: I—HISTOCHEMISTRY. Victor Formisano and Walter C. Lobitz, jnr. (1957) *Arch. Derm. Syph., Chicago* **75**, 202.

In apparently normal skin and sweat ducts the lumen of the duct was often partially or almost entirely filled with Schiff-positive, diastase resistant " casts ". This material is formed in the secretory cells of the glands and is then spread over the surface of the entire sweat duct wall and pore and may be sufficient to form a " cast ". The material is probably a polysaccharide-protein-lipid complex. J. K.

THE VALUE OF LOCAL HYDROCORTISONE IN THE TREATMENT OF SKIN DISEASES. By the Staff of St. John's Hospital for Diseases of the Skin and the Institute of Dermatology, London. (1957) *Practitioner*, **337**, 178.

In an assessment of the results of treatment in over 700 cases it was found that in many eczematous conditions hydrocortisone applied locally was helpful, providing it was reserved for cases where the condition was localized. It is not recommended for widespread eczema or dermatoses such as lichen planus or psoriasis. Particularly good results were seen in eczema of the eyelids, ears, face and genitalia. In nearly all cases 1% hydrocortisone was found to be adequate and in some 0·5% hydrocortisone ointment was used successfully. There was little or no evidence to suggest that hydrocortisone ointment positively favours superficial infections. R. J.C.

TOXIC DERMATITIS ASSOCIATED WITH PREDNISONE THERAPY. C. D. Bonner and F. Homburger. (1957) *New Engl. J. Med.*, **256**, 131.

This paper describes a patient with atopic dermatitis who developed an altogether different erythemato-bullous eruption after taking 30 mg. of prednisone daily for three weeks. The drug was stopped and the rash disappeared, only to recur on giving prednisone again. This happened twice. A. D. P.

DRUG ERUPTIONS DUE TO MEPROBAMATE. J. M. Stroud. (1957) *New Engl. J. Med.*, **256**, 354.

Eruptions developed in five patients taking meprobamate. In three the eruption was diffuse and morbilliform, and in two was a multiforme erythema.

Pruritus, fever and vascular collapse were also noted, but not in all. Steroid therapy was beneficial. A. D. P.

CLINICAL AND METABOLIC EFFECTS OF PREDNISONE, PREDNISOLONE, AND CORTISONE IN A PATIENT WITH ACRODERMATITIS CONTINUA (HALLOPEAU). E. Calkins, L. Reznick and W. Bauer. (1957) *New Engl. J. Med.*, **256**, 245.

It was found that prednisone and prednisolone in daily doses of 75 mg. produced negative nitrogen and phosphorus balance. During the initial metabolic study prednisone and prednisolone produced no sodium retention, even when the latter was given in doses of 150 mg. daily and the patient was receiving 10 g. of salt. Hypertension and cardiac failure, however, appeared with continuous prednisone therapy. Prednisolone, 150 mg. daily, suppressed the skin lesions but when it was stopped dissemination occurred. A. D. P.

TRICHOPHYTON RUBRUM INFECTION IN FAMILIES. Mary P. English. (1957) *Brit. med. J.*, i, 744.

The epidemiology of *T. rubrum* infections has been studied in 19 families in whom one member was known to be infected. The disease had spread in 9 of the families and 13 (27%) of the 48 contacts were infected. The mycological similarity of fungi isolated from members of the same family was demonstrated. In 78% of all the infected individuals the nails were involved. Six out of eight persons over the age of 14 who had been exposed to infection during childhood had contracted the disease. S. T. A.

ATHLETE'S FOOT FUNGI ON FLOORS OF COMMUNAL BATHING-PLACES. J. C. Gentles. (1957) *Brit. med. J.*, i, 746.

Four shower stalls of a communal bath-house were sampled before and after use. It is shown that the presence of dermatophytes as saprophytic colonies on the floors is unlikely and that spread of infection probably takes place by transfer of infected skin fragments. S. T. A.

PSORIASIS AND TONSILLITIS. T. Grüneberg and G. Conradi. (1957) *Derm. Wschr.*, **135**, 129.

The relationship between tonsillar infection and psoriasis is stated once more. Six hundred and sixty-four cases of psoriasis were treated, 139 of whom were suffering from guttate psoriasis and of these 30% had the eruption 3 to 4 weeks after tonsillitis. Fourteen of the 42 cases in this group had never had psoriasis before. In the post-tonsillitis type a single attack may be the only lifetime manifestation of a psoriatic diathesis. In the remaining 525 cases suffering from chronic psoriasis only 11 gave a history of tonsillitis and in none of them was an exacerbation produced by the throat infection. W. G. T.

SYMPTOMATOLOGY AND AETIOLOGY OF PUSTULAR PSORIASIS. K. H. Kärcher. (1957) *Derm. Wschr.*, **135**, 133.

A severe case of generalized pustular psoriasis is reported. Successful treatment of a sinus infection is considered to be a point in favour of focal sepsis as an aetiological factor. The literature dealing with the question of a possible nosological identity of impetigo herpetiformis, pustular psoriasis, acrodermatitis continua (Hallopeau) and psoriasis vulgaris is reviewed but it is doubted that these are manifestations of the same disease. W. G. T.

HEPARIN THERAPY IN PSORIASIS VULGARIS. C. Eberhartinger. (1956) *Derm., Wschr.*, **134**, 1369.

Reports of an increase in lipoproteins in sufferers from psoriasis induced the author to try heparin in this disease. In view of the transient action of intravenous heparin, depot heparin only was used and was injected subcutaneously beneath patches of psoriasis. The treatment was continued for 10 days only and an obvious response was seen in 7 out of 22 cases before the sixth day. In 10 cases there was a suggestion of improvement. General improvement was occasionally observed. A patient who had previously responded to a low fat diet showed good response without additional dietetic measure. The lack of constancy of response suggests that the metabolic abnormality is only one factor in the causation of psoriasis. W. G. T.

TRICHOPHYTON RUBRUM INFECTION. H. Rosenfeld. (1957) *Derm. Wschr.*, **135**, 110.

In addition to the increase of monilial infection from the increased use of antibiotics the high incidence of trychophyton rubrum infection in North America is stressed, and the difficulty of treatment, particularly when the nails are affected, is mentioned. W. G. T.

THE ORAL TREATMENT OF SKIN DISEASES WITH CORTISONE AND PREDNISONE. H. Stuhlert. (1957) *Derm. Wschr.*, **135**, 289.

Apart from using steroids for conditions in which this treatment is now well established, he reports success with moderate doses in a case of panvasculitis allergica cutis and one of bromoderma tuberosum. Doses of 5 mg. four times a day were found to be easily tolerated and suitable for outpatient treatment. Larger doses should be reserved for serious conditions such as pemphigus and acute lupus erythematosus. W. G. T.

THE QUESTION OF DERMATOMYOSITIS AND NEOPLASM. W. Thies. (1957) *Derm. Wschr.*, **135**, 292.

In a case of acute dermatomyositis a neoplasm of the alimentary tract was suspected and autopsy revealed a large carcinoma of the pancreas. Dermatomyositis is a systemic disease which may not be an entity caused by one single cause. Histologically vascular damage is striking. Association with neoplastic disease is possibly commoner than suggested by some of the published series suggest since post-mortem examination is not likely to be carried out in all cases. W. G. T.

ACUTE PELLAGRA. A. Kutá. (1957) *Derm. Wschr.*, **135**, 25.

Eight cases of an acute light dermatitis were observed in a hospital in North Korea. The condition was of sudden onset affecting the skin of exposed parts only. In view of the evident difference from the well-known clinical picture of chronic pellagra an avitaminosis was not at first suspected. There was much oedema of the face, purpura of the extremities and the presence of large bullae. Photosensitization due to plants was suspected. Ordinary light sensitization does not occur in the Koreans. Hospital diet and administration of vitamin preparations brought about a rapid improvement, though the bullae left chronic ulcers which healed slowly.

W. G. T.

UNUSUAL CAUSATION OF HALOGEN ACNE IN A CHILD. W. Höfs. (1957) *Derm. Wschr.*, **135**, 1.

A boy aged 11 at first suspected of suffering from keratosis follicularis of face and extremities returned completely clear after an absence from home at a holiday camp. Investigation of the home established the use by the mother of a wax for the impregnation of bed linen. Acne-producing property of the material was proved by animal experiment. W. G. T.

CHRONIC IRRITATIVE DERMATOSES. G. Auckland. (1956) *Med. Pr.*, **235**, 208.

This article covers very well the whole difficult therapeutic field embraced by the title. Since the only connection many of these dermatoses have with each other is the slender one of chronicity and irritation, they are considered under the headings of very common, common and uncommon ranging from urticaria and chronic eczema to dermatitis herpetiformis and erythrodermia.

The dermatoses are treated along usually accepted lines. H. R. V.

PSYCHOLOGICAL FACTORS IN DERMATOLOGY AS THEY APPEAR TO A DERMATOLOGIST. B. Russell. (1956) *Med. Pr.*, **235**, 176.

This most useful article summarizes very clearly the present views of practising dermatologists on this controversial subject.

The skin is the chief organ of emotional expression and, with the hair, it makes a major contribution to the expression of personality. In addition to dermatoses associated directly with the emotional state, the complicated mind-skin relationship may predispose the patient to organic skin disease, for example hyperidrotics easily acquire fungous infection.

Undischarged emotion may give rise to many dermatoses. Unresolved fear may be seen as flushing or pallor, horrification, sweating and itching; lichenification may suggest narcissistic traits while prurigo, scratching and excoriation suggest self-directed aggressional drives. A summary is given of some of the experimental work on psychodermal mechanism—on itching, pruritus vulvae, pruritus ani, vascular changes, sweating, seborrhoeic dermatitis, acne vulgaris, eczematous exudation and hypersensitivity, pompholyx, psoriasis, alopecia areata and Besnier's prurigo.

The question of diagnosis of those disorders is considered very carefully; it is all too easy for the clinician to suggest an association between stress and a dermatosis in a particular patient, and also the dermatologist must guard against the patient pinning his illness on to some unconnected emotional upset.

In treatment, comprehensive history and examination is the first important step towards cure.

The advice and help of a psychiatrist may be invaluable. Physical and mental rest, sedatives, placebos and suggestion (covering methods) are used in the majority of cases; uncovering methods requiring insight can only be used in the minority with intelligence and in whom there are relatively superficial conflicts related largely to current difficulties.

Palliation with sedatives and euphoriant drugs is often all that can be offered and local manifestations are treated on their own merits.

This article should be read by all interested in this difficult but rational approach to the patient. H. R. V.

THE CARE OF THE SKIN IN COLD WEATHER. P. D. Samman. (1956) *Med. Pr.*, **235**, 266.

The two conditions commonly caused by exposure to cold are chilblains and chapping.

Chilblains occur particularly in cold damp climates and the only efficient protection is warm clothing. The value of local treatment is limited but some cases are helped by vasodilators taken preferably immediately after meals when facial flushing caused by the drugs is less noticeable. Suitable preparations are Priscol, nicotinic acid or Ronicol; calcium and Vitamin D are useless in treatment.

Chapping occurs when the air is cold and dry and is associated with loss of water from the horny layers of the skin. This cooling effect of evaporation is most marked when the skin is wet so in these patients the hands must be kept as dry as possible.

A hand cream consisting of equal parts of salicylic ointment and glycerine of starch is useful and unguentum aquosum can be used as a barrier cream.

Prurigo hiemalis—generalized irritation in cold weather—is an uncommon but distressing condition occurring in cold weather, often aggravated by bathing. H. R. V.

THE FORMATION OF VELLUS HAIR FOLLICLES FROM HUMAN ADULT EPIDERMIS. A. M. Kligman and J. S. Strauss. (1956) *J. invest. Derm.*, **27**, 19.

Cosmetic planing of the frozen skin with a rotary wire brush takes off a couple of millimetres at the most, that is to say it goes about half-way through the dermis. The process leaves no appreciable scar and does not destroy the follicles of terminal hair, but it has been assumed to remove every vestige of the lanugo. Sections appear to show new formation of functional lanugo hair from the covering epithelium. J. H. T. D.

THE EFFECT OF NYSTATIN ON EXPERIMENTAL CANDIDIASIS IN TISSUE CULTURE. Funan Hu. (1956) *J. invest. Derm.*, **27**, 25.

This pursues the line of earlier work (*J. invest. Derm.*, **26**, 23) in which were examined the effects of low concentrations of certain primary irritants on epidermal tissue cultures. Tested simultaneously on monilia and cultured epidermis, nystatin is shown to be fungistatic within its range of aqueous solubility, lethal to monilia in suspension of "100 units" per c.c. but harmless to epidermis below 500 units. The presence of epidermis does not impair its action. Therefore by *in vitro* standards it is a good fungicide insofar as its insolubility and instability in the presence of water will permit. J. H. T. D.

EVALUATION OF NITROSTYRENES AS ANTIFUNGAL AGENTS. II. *IN VIVO* EXPERIMENTS. E. E. Evans, R. F. Haines, A. C. Curtis, F. C. Bocobo, W. D. Block, E. R. Harrell. (1956) *J. invest. Derm.*, **27**, 43.

To protect mice from the fatal consequences of inoculation with blastomyces, histoplasma, cryptococcus, trichophyton or candida it is unfortunately necessary to cook the microbes in the nitrostyrene before injecting them. It is supposed that the drug is inactivated by something in the tissues, probably not serum. J. H. T. D.

EXAMINATION OF THE EPIDERMIS BY THE STRIP METHOD. III. THE NUMBER OF KERATIN CELLS IN THE HUMAN EPIDERMIS. R. Hunter, H. Pinkus and C. H. Steele. (1956) *J. invest. Derm.* **27**, 31.

An area 5 in. long and $\frac{1}{2}$ in. wide is repeatedly stripped with Scotch tape until the endpoint, represented by a characteristic shiny dry surface, is reached. Only the middle half-inch square of each strip is used (and it is not explained why 5 in. need be subjected to the process) the adherent horn cells being washed off with xylene, the clumps being broken up by mechanical means, and suspended in a xylene carbon tetrachloride mixture. 0·1 ml. of this suspension is placed on a slide and covered with a 24×50 mm. coverslip the edges of which are prepared with adhesive mounting medium.

The arithmetic is simple enough, the statistics of variation and error look reassuring, and there is good correspondence with expected figures.

On the forearm we have anything between 0·66 and $1{\cdot}4 \times 10^6$ horn cells per sq. cm. and we could easily regenerate them all in 4 days at a mitotic rate for the epidermis of 1·5 per 1000 cells. The cryptic remark that " it does not appear necessary to look for outside sources of epidermal cells in the human skin " would need interpretation for most of us. The method however might well be good enough for measuring the increase in thickness of the horny layer said to be produced by exposure to light, glass wool, etc. J. H. T. D.

THE 20 MINUTE RATE OF SEBACEOUS SECRETION IN THE FOREHEAD. J. E. Kirk and M. Chieffi. (1956) *J. invest. Derm.*, **27**, 15.

Since the presence of sebum on the surface inhibits its secretion it is necessary, in order to collect the maximum output, to keep removing it as often as possible. If this is done at intervals of 20 minutes it seems that some reduction of output becomes noticeable after about 6 hours.

J. H. T. D.

KAHN'S UNIVERSAL REACTION IN LEPROSY. A. L. Olitzki and F. Sagher. (1956) *J. invest. Derm.*, **27**, 35.

The asymmetrical curve described by Kahn as characteristic of leproma tends to be manifested more often during the clinical improvement obtained in the early stages of treatment than in the unmodified disease. J. H. T. D.

OBSERVATIONS ON THE DESOXYRIBONUCLEIC ACID COMPONENT OF PIGMENTED SKIN TUMOURS. E. P. Cawley, J. F. A. McManus and C. E. Wheeler. (1956) *J. invest. Derm.*, **27**, 9.

Desoxyribonucleic acid is constantly and fairly uniformly present in nuclei of all kinds. Its presence is revealed and its quantity may be estimated by hydrolysis with HCl. which exposes an aldehyde group that then combines with reduced fuchsin to give a purple colour (Feulgen reaction). This colour was thought to be more intense in malignant melanoma than in moles.

J. H. T. D.

HYDRATION OF THE SKIN AND ITS EFFECT ON SWEATING AND EVAPORATIVE WATER LOSS. C. N. Peiss, W. C. Randall and A. B. Hertzman. (1956) *J. invest. Derm.*, **26**, 459.

When you get your shoes wet can the water penetrate the skin and enter the circulation ? No, the sweat ducts are too small and there is no " vapour pressure gradient " (apparently a function of natural water content and temperature and quite distinct from the influences that provide so much work for the kidneys of fresh-water fish) to help it enter the subcutaneous tissues.

Much water however is taken up by the horny layer, hydration of which is shown to inhibit sweating (except of course in hyperhidrosis pedum). J. H. T. D.

THE EFFECT OF SKIN TEXTURE ON THE HEATING OF THE HUMAN SKIN BY THERMAL RADIATION. F. B. Benjamin. (1956) *J. invest. Derm.*, **26**, 471.

Part of the energy of a 1000-watt projection lamp would be reflected by normal white skin and the rest absorbed at various depths. The surface having been painted with indian ink 94% of the energy is absorbed and is transmitted into the skin by conduction.

The diathermancy of palm and flexor aspect of forearm, the influence of age and the effect of treating the surfaces with oil, etc., are here studied and the results expressed in terms calculated to discourage the hardiest interpreter of jargon. J. H. T. D.

EVALUATION OF SUBSTANCES CAUSING LOSS OF SEBACEOUS GLANDS FROM MOUSE SKIN. F. G. Bock and R. Mund. (1956) *J. invest. Derm.*, **26**, 479.

In whole mounts of mouse skin at the resting phase of the hair cycle stained with Nile Blue and cleared, the sebaceous glands show up red and their volume can be readily estimated.

The observations contained in this paper, which are applicable only to mice and polycyclic hydrocarbons, suggest that carcinogenic properties may be conveniently inferred from the wasting of sebaceous glands. J. H. T. D.

A FIBROUS KERATIN PRECURSOR FROM THE HUMAN EPIDERMIS. I. THE EXTRACTION AND PHYSICAL PROPERTIES OF A FIBROUS PROTEIN FOUND IN THE HUMAN EPIDERMIS. D. A. Roe. (1956) *J. invest. Derm.*, **27**, 1.

FURTHER STUDIES OF A FIBROUS KERATIN PRECURSOR FROM THE HUMAN EPIDERMIS. D. A. Roe. (1956). *J. invest. Derm.*, **27**, 319.

From the upper part of the epidermis but hardly at all from the horny layer there can be extracted with 75% lithium bromide an interesting protein the chemical and physical properties of which are here described. The effect of lithium bromide on epidermis is also demonstrated histologically. These valuable papers must be read by all who are interested in keratinization. J. H. T. D.

CUTANEOUS RETICULOSIS. R. Degos, B. Ossipovski, J. Civatte and B. Touraine. (1957) *Ann. Derm. Syph., Paris*, **84**, 125.

This is an authoritative statement of French views on cutaneous reticulosis. The term is defined as " proliferations of normal or malignant elements of the reticulohistiocyte series arising in the skin and constituting dermal infiltrates, dense homogeneous and persistent with a tendency to extension and diffusion ". Hodgkin's disease is not included nor, less definitely, mycosis fungoides. The authors place much reliance in diagnosis on the " dermogram ", the imprint of a biopsy on a slide, specially stained. Treatment is also discussed. F. F. H.

THE PUBIC HAIR IN ACNE VULGARIS. Heinz Gartmann. (1955) *Zbl. Haut.- u. Geschlkr.*, **18**, 825.

A fascinating study of the form of the pubic hair in 3400 normal males and 3206 normal females and in 423 males and 241 females with acne.

The author concludes that there is no variation in pattern between the male of 12–39 years old with or without acne, or similarly in the female of 12–29 years old.

However females of 30–39 years old with acne have an excessive growth.

Facial hair in acne subjects has attracted attention before, and these statistics should be of lasting value for those who are particularly interested. P. D. C. K.

THE TREATMENT OF PSORIASIS WITH FOLIC ACID. Heinz Steinhoff. (1955) *Zbl. Haut.- u. Geschlkr.*, **19**, 229.

Of 54 patients with psoriasis, 40 cleared completely, 11 were improved and only 3 were unaffected.

Folic acid 15 mg. was given by injection or in tablet form for 26–90 days. Since simultaneous U.V.R. treatment accelerated the improvement, it is suggested that folic acid may have a photosensitizing effect. P. D. C. K.

MONILIAL GRANULOMA. Marianne Ruppert. (1956) *Zbl. Haut.- u. Geschlkr.*, **20**, 97 .

A 7-year-old girl had monilial granulomata on the scalp, face and neck and also lung lesions suggestive of moniliasis. The author suggests that granuloma is a rare idiopathic type of reaction to monilia. P. D. C. K.

HYPERKERATOSIS FOLLICULARIS ET PARAFOLLICULARIS IN CUTEM PENETRANS. W. Meyhoffer and W. Knoth. (1956) *Zbl. Haut.- u. Geschlkr.*, **20**, 181.

A single case with typical histology. The authors regard this disorder as a separate entity from Darier's disease. P. D. C. K.

THE DIFFERENTIAL DIAGNOSIS OF PEMPHIGUS AND DERMATITIS HERPETIFORMIS. M. Zingsheim and R. Lange. (1956) *Zbl. Haut.- u. Geschlkr.*, **20**, 5.

The spreading effect after blister content injections in patients with bullous dermatoses was recorded by a photographic fluorescence test. The blister content of pemphigus limited the spreading effect, other bullous dermatoses increased it. Cantharides blisters did not appear in the normal 24 hours in pemphigus and when they did were very flaccid.

This happened also during intermissions of pemphigus. Two pemphigus patients with a normal " blister time " died. A raised " blister time " meant a good prognosis.

In other dermatoses including dematitis herpetiformis the " blister time " was normal.

P. D. C. K.